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ABSTRACT

This publication provides projections of statistics for elementary and secondary school and institutions of higher education. Projections for the 10-year period from 1970 to 1980 are made for enrollments, graduates, teachers, and expenditures. Based mainly on 1959-60 to 1969-70 data, these projections assume that the past 10 years' trends in enrollment rates, retention rates, class sizes, and per pupil expenditures will continue through 1979-80. Numerous tables, charts, and graphs illustrate study findings. A related document is ED 044 828. (Author/LLR)

HIGHLIGHTS

If present trends continue, we can expect changes in—

☐ Enrollment in all regular public and private elementary and secondary day schools:
  - From 51.3 million in 1969 to 51.0 million in 1979.

☐ Degree-credit enrollment in institutions of higher education:
  - From 7.3 million in 1969 to 11.1 million in 1979.

☐ High school graduates from all public and private secondary day schools:
  - From 3.0 million in 1969-70 to 3.8 million in 1979-80.

☐ Bachelor's and first-professional degrees granted by institutions of higher education:
  - From 784,000 in 1969-70 to 1,133,000 in 1979-80.

☐ Full-time and part-time classroom teachers in all regular public and private elementary and secondary day schools:
  - From 2.2 million in 1969 to 2.3 million in 1979.

☐ Full-time-equivalent instructional staff for resident degree-credit courses in institutions of higher education:
  - From 411,000 in 1969-70 to 570,000 in 1979-80.

☐ Total expenditures of all regular public and private elementary and secondary schools:
  - From $45.4 billion in 1969-70 to $55.2 billion in 1979-80 (in 1969-70 dollars).

☐ Total expenditures of institutions of higher education:
  - From $24.9 billion in 1969-70 to $42.2 billion in 1979-80 (in 1969-70 dollars).

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PROJECTIONS OF EDUCATIONAL STATISTICS TO 1979-80

1970 Edition

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FOREWORD

This publication provides projections of statistics for elementary and secondary schools and institutions of higher education. The statistics include enrollments, graduates, teachers, and expenditures. These projections supersede the ones shown in *Projections of Educational Statistics to 1978-79,* 1969 edition. They are based mainly on 1959-60 to 1969-70 Office of Education data, and they cover the period 1970-71 to 1979-80 for the United States. Many of these data are available by State for 1969-70 in the Office of Education publication, *Digest of Educational Statistics,* 1970 edition.

The projections shown here assume that the past 10 years' trends in enrollment rates, retention rates, class sizes, and per pupil expenditures will continue through 1979-80. Further information about projected changes and the assumptions on which these are based are shown in the main body of this report. Details of the methodology used in making these projections are given in the appendixes.

Dorothy M. Gilford,
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CHAPTER I

Introduction and Summary

This is the seventh in a series of annual projections of data on education revised each year in order to take account of current information and emerging trends.

This edition incorporates projections of elementary and secondary enrollments based on revised population projections by the Bureau of the Census. These population projections take into account current fertility rates and their portent for the future. They do not take into account changes revealed by the 1970 Census because these data were not yet available when the population projections were made. The new population projections resulted in somewhat lower projections of elementary and secondary enrollments beginning about 1975.

Data separating postbaccalaureate enrollment into first-professional and graduate enrollment became available this year for the first time since 1963. The new data showed that the growth in first-professional enrollment had lagged far behind that in graduate enrollment. As a result, the new projections show a considerable increase in graduate enrollment over that estimated and projected in previous years.

The statistical universe from which the enrollments and other educational data shown in this report were drawn consists of (1) the public school districts which report to their respective State departments of education, (2) the nonpublic grade schools included in the Nonpublic School Directory of the U.S. Office of Education,[1] and (3) the institutions of higher education meeting the requirements for inclusion in the Higher Education Directory of the U.S. Office of Education.[2] The coverage is the 50 States and the District of Columbia and excludes extension centers of U.S. educational institutions abroad.

The published sources of the data, usually U.S. Office of Education surveys, are noted in each table. The tables are grouped by subject matter—together with detailed explanations of inclusions, exclusions, and descriptions of the data and projection methods—in separate chapters on enrollments, graduates, teachers, expenditures, and tuition and other charges.

Footnotes to the tables state the assumptions on which the projections are based, with references to tables and other data in the appendixes giving detailed technical explanations of estimation and projection methods. The appendixes also include selected details of classification changes, a glossary of terms, and a number of auxiliary tables.

The projections are based, essentially, on trends in enrollment rates of the population over the past 11 years and on the projected population groups from which enrollment will be drawn in the next 10 years. The increases or decreases of the enrollment and other rates and the description of the data on which they are based are shown in appendix A, tables A-1 through A-4. The projections of population of the typical age at each level of enrollment are shown in appendix B, tables B-1 and B-2. (The population data used are those projected by the U.S. Bureau of the Census and reported in its population series P-25.[3])

The enrollment rates have been growing steadily over the past 10 years, but the population groups have been growing less rapidly and some are dropping in size. The interaction of these two projection components determines, directly or indirectly, the numbers expected in the different areas of education. The numbers expected are shown graphically for the principal areas of education in figures 1 through 9 and, in more detail, with percentage increases from 1959 to 1969 and from 1969 to 1979, in table 1.

---

[1] U.S. Department of Health, Education, and Welfare, Office of Education, "Nonpublic School Directory, Elementary and Secondary Day Schools, 1968-69," U.S. Government Printing Office, Washington, D.C., 1970.

[2] U.S. Department of Health, Education, and Welfare, Office of Education, "Education Directory, 1969-70, Higher Education," U.S. Government Printing Office, Washington, D.C., 1970.

[3] U.S. Department of Commerce, Bureau of the Census, *Current Population Reports,* "Population Estimates and Projections: Projections of the Population of the United States, by Age and Sex (Interim Revisions), 1970 to 2020," Series P-25, No. 448, August 6, 1970.

A summary of major trends, past and projected, follows:

Major trends in education

(1) The school-age population is increasing less rapidly or declining.

	Percent change	
	1959 to 1969	*1969 to 1979*
Elementary age	16.3	−9.0
Secondary age	39.7	5.0
Higher education undergraduate age	53.4	19.3

(2) The high school graduation rate is increasing.

	Graduates as percent of 18-year-olds
1959-60	66.8
1969-70	78.4
1979-80	89.5

(3) The proportion of high school diplomas awarded to boys is increasing and is expected to exceed 50 percent before 1980.

	Boys as percent of all graduates
1959-60	48.2
1969-70	49.6
1979-80	50.6

(4) Proportionately more people are earning college degrees.

	Bachelor's degrees as percent of graduation age population
1959-60	17.5
1969-70	22.8
1979-80	27.1

(5) A larger proportion of degrees earned are advanced degrees.

	Master's as percent of total	*Doctor's (except first-professional) as percent of total*
1959-60	16.3	2.1
1969-70	21.2	2.8
1979-80	26.6	3.8

(6) The proportion of bachelor's and first-professional degrees awarded to women is increasing.

	Women as percent of bachelor's and first-professional-degree recipients
1959-60	35.0
1969-70	41.8
1979-80	46.3

(7) Degree-credit enrollment in 2-year institutions is growing faster than in 4-year institutions.

	Degree-credit students in 2-year institutions as percent of all degree-credit students
1959	12.1
1969	19.1
1979	22.1

(8) **The ratio of public elementary and secondary students to classroom teachers is declining.**

	Ratio of students to classroom teachers		
	Total	*Elementary*	*Secondary*
1959	26.3	28.7	21.5
1969	22.7	24.8	20.0
1979	21.8	23.6	19.9

(9) **The cost of educating public elementary and secondary students is increasing.**

	Current expenditure per pupil in average daily attendance (1969-70 dollars)
1959-60	$482
1969-70	783
1979-80	986

(10) **The cost of educating college students is increasing.**

	Current expenditures per full-time-equivalent student for student education (1969-70 dollars)		
	Total	*Publicly controlled institutions*	*Privately controlled institutions*
1959-60	$1,476	$1,456	$1,506
1969-70	2,025	1,896	2,362
1979-80	2,459	2,256	3,208

Figure 1. Enrollment in Grades K-12 of Regular Day Schools, by Institutional Control and Organizational Level: United States, Fall 1959 to 1979

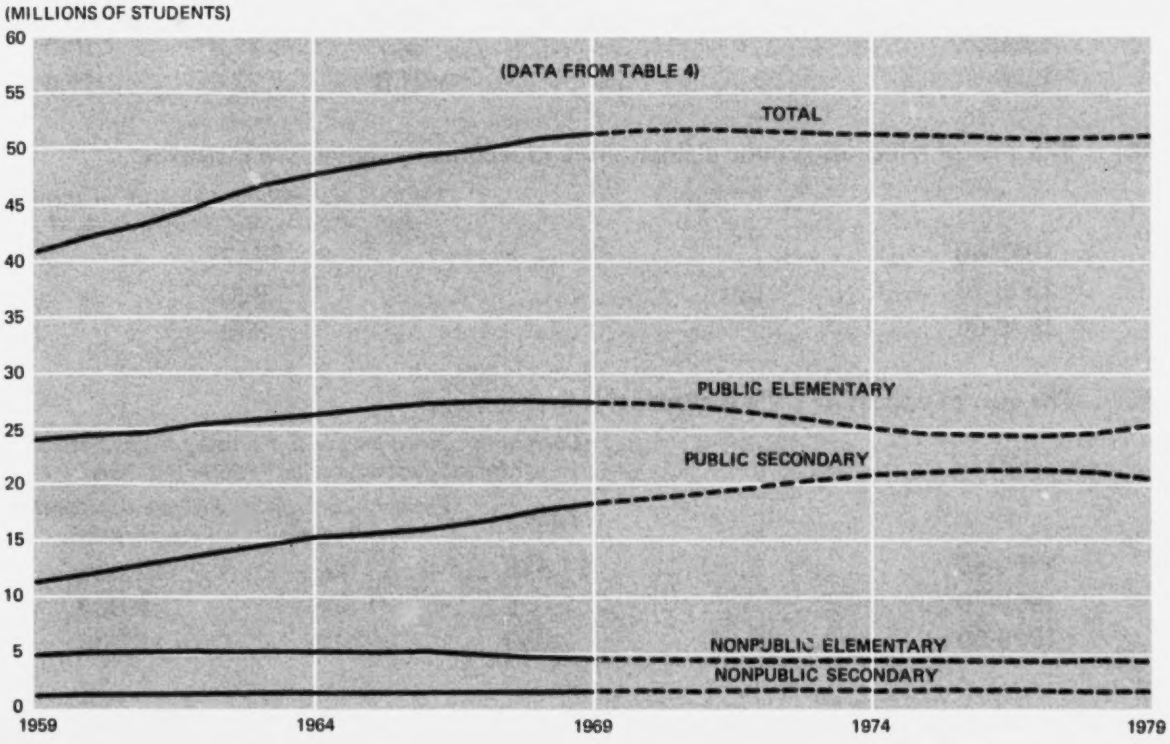

Figure 2. Total Degree-Credit Enrollment in Institutions of Higher Education, by Control and Type of Institution: United States, Fall 1959 to 1979

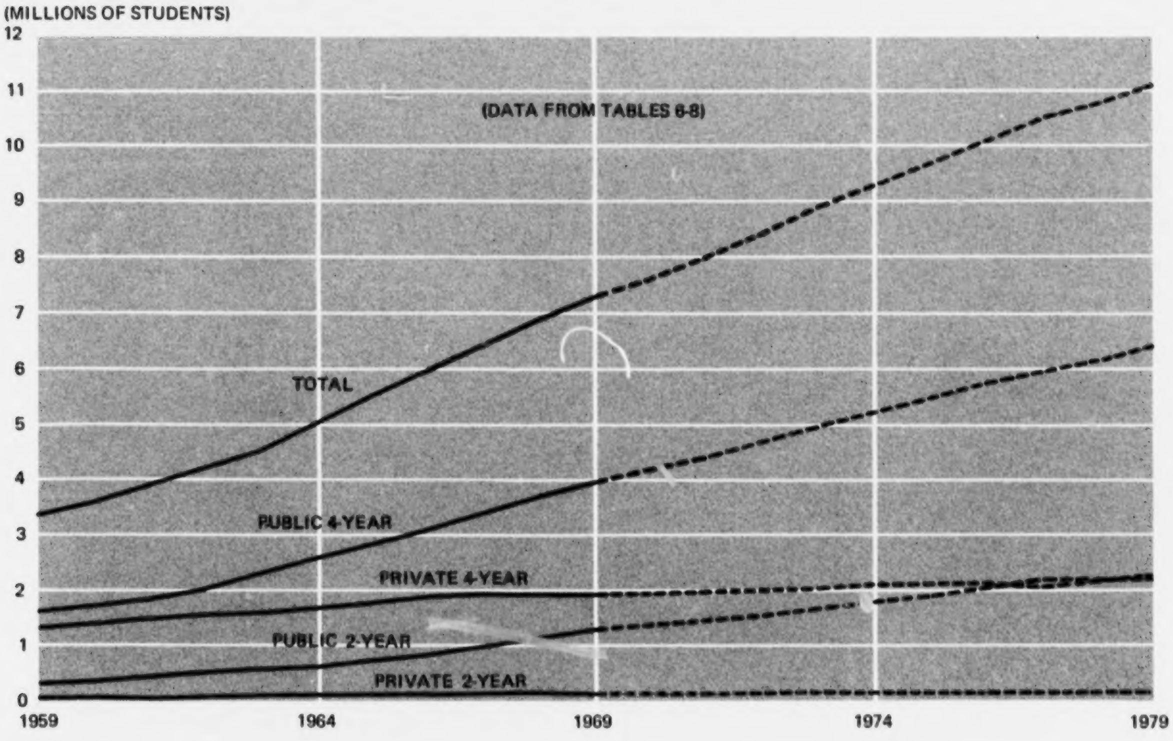

Figure 3. High School Graduates: United States, 1959-60 to 1979-80

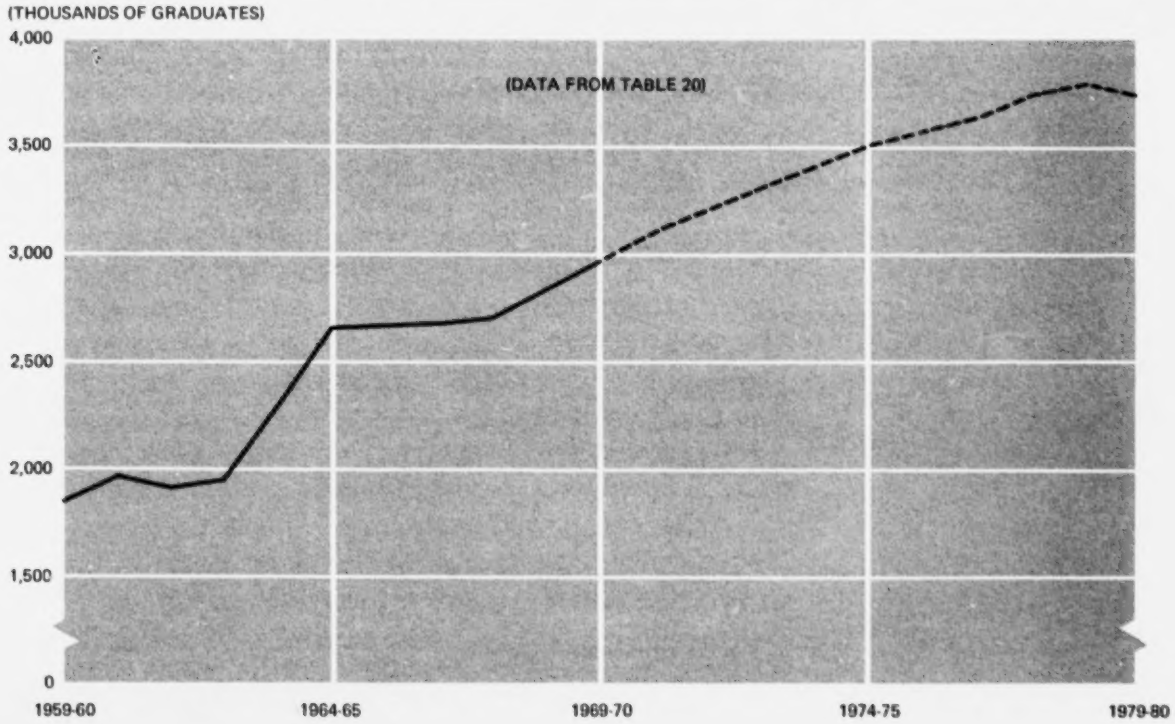

Figure 4. Earned Degrees, by Level: United States, 1959-60 to 1979-80

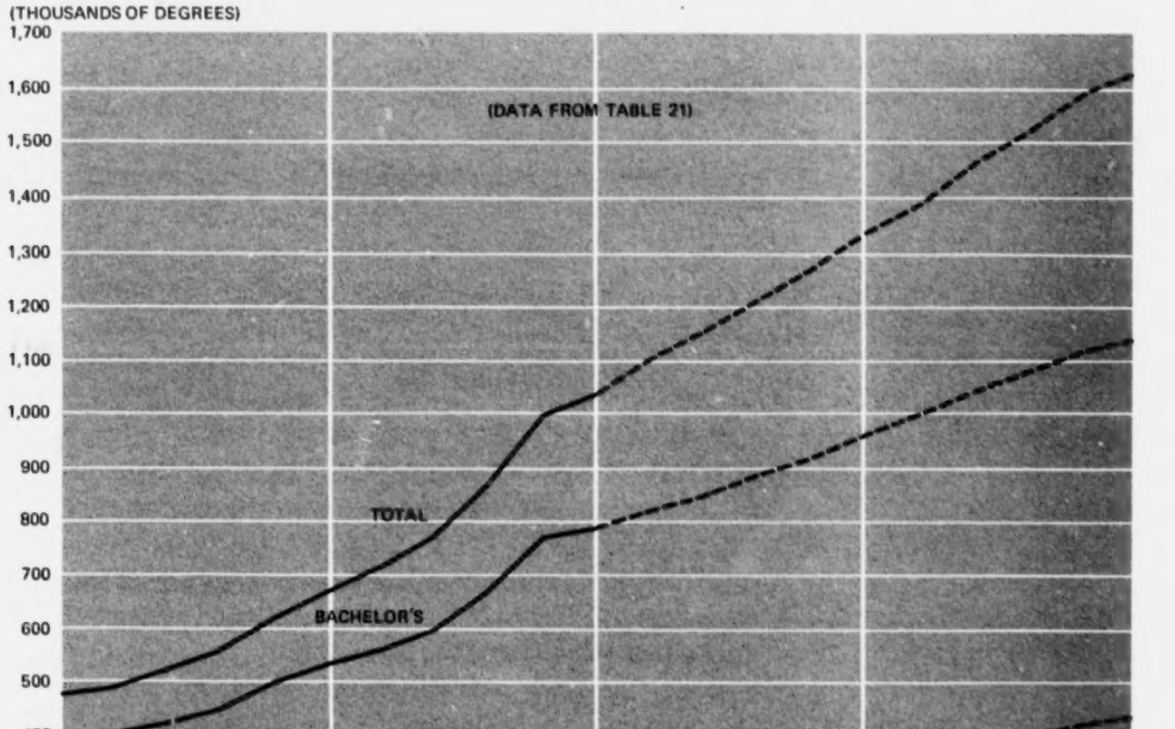

Figure 5. Classroom Teachers in Regular Elementary and Secondary Schools, by Institutional Control and Organizational Level: United States, Fall 1959 to 1979

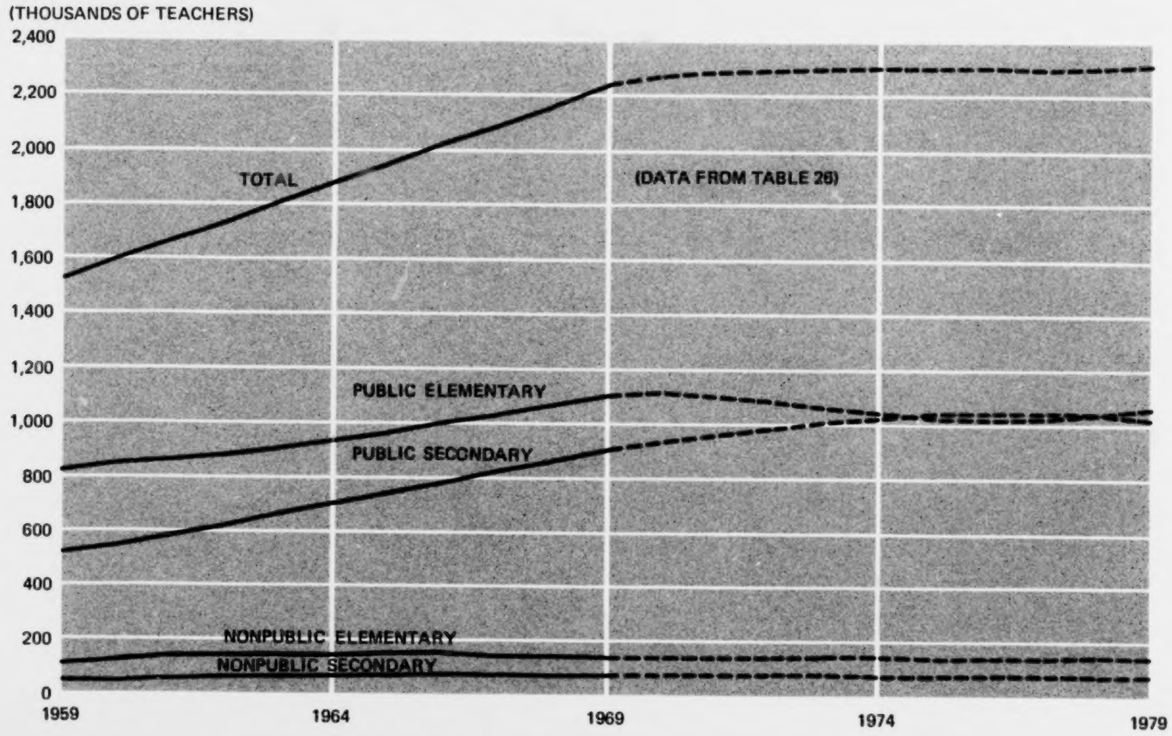

Figure 6. Instructional Staff Positions for Resident Degree-Credit Courses in Institutions of Higher Education, by Type and Control of Institution: United States, First Term 1959-60 to 1979-80.

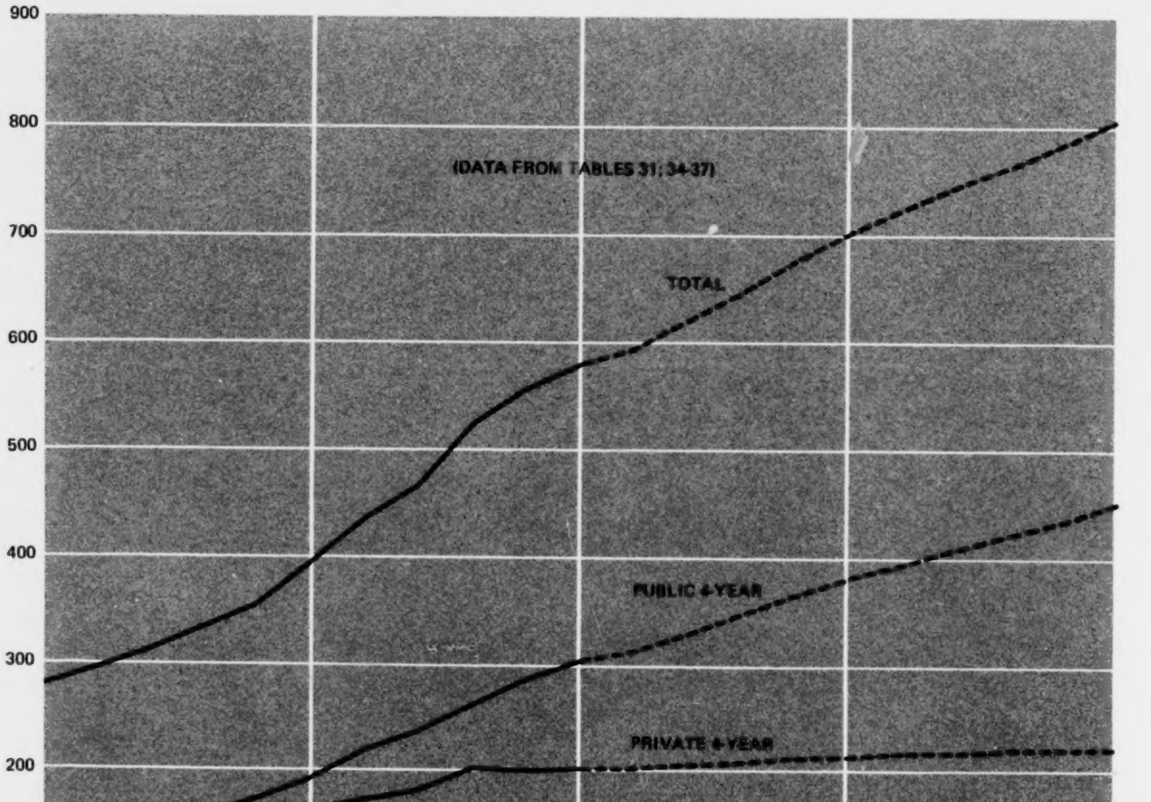

Figure 7. Total Expenditures (1969-70 Dollars), by Regular Elementary and Secondary Day Schools: United States, 1959-60 to 1979-80.

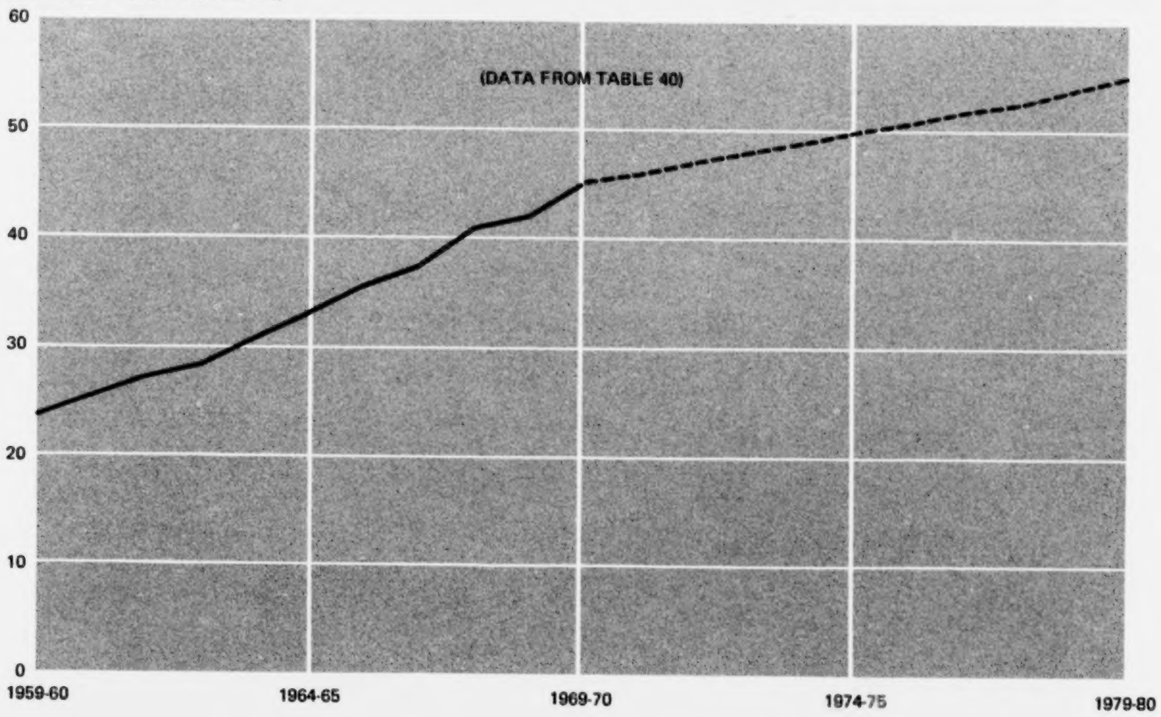

Figure 8. Total Expenditures (1969-70 Dollars), by Institutions of Higher Education: United States, 1959-60 to 1979-80

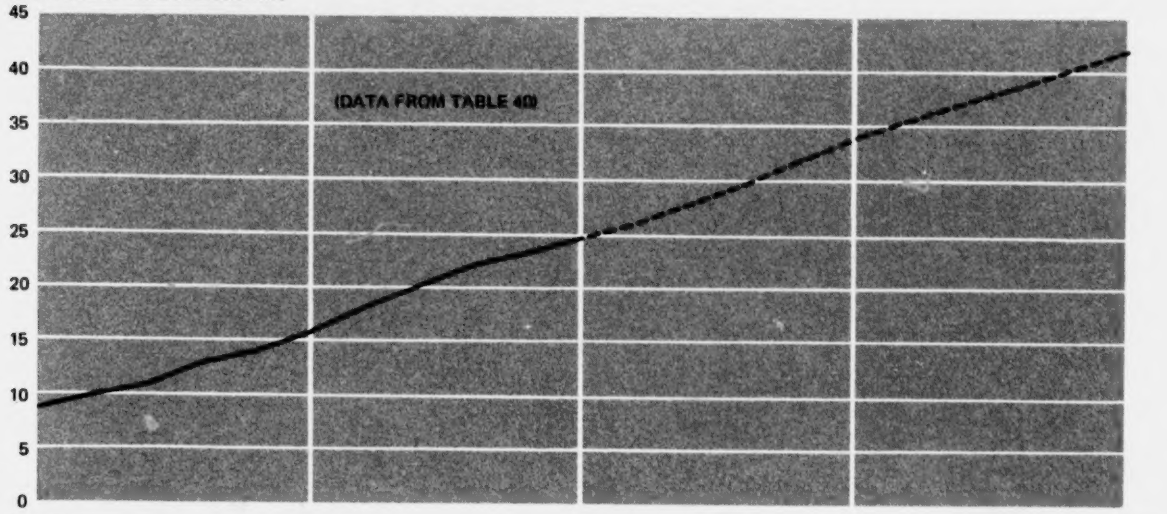

Figure 9. School Age Population: United States, October 1969 to 1979

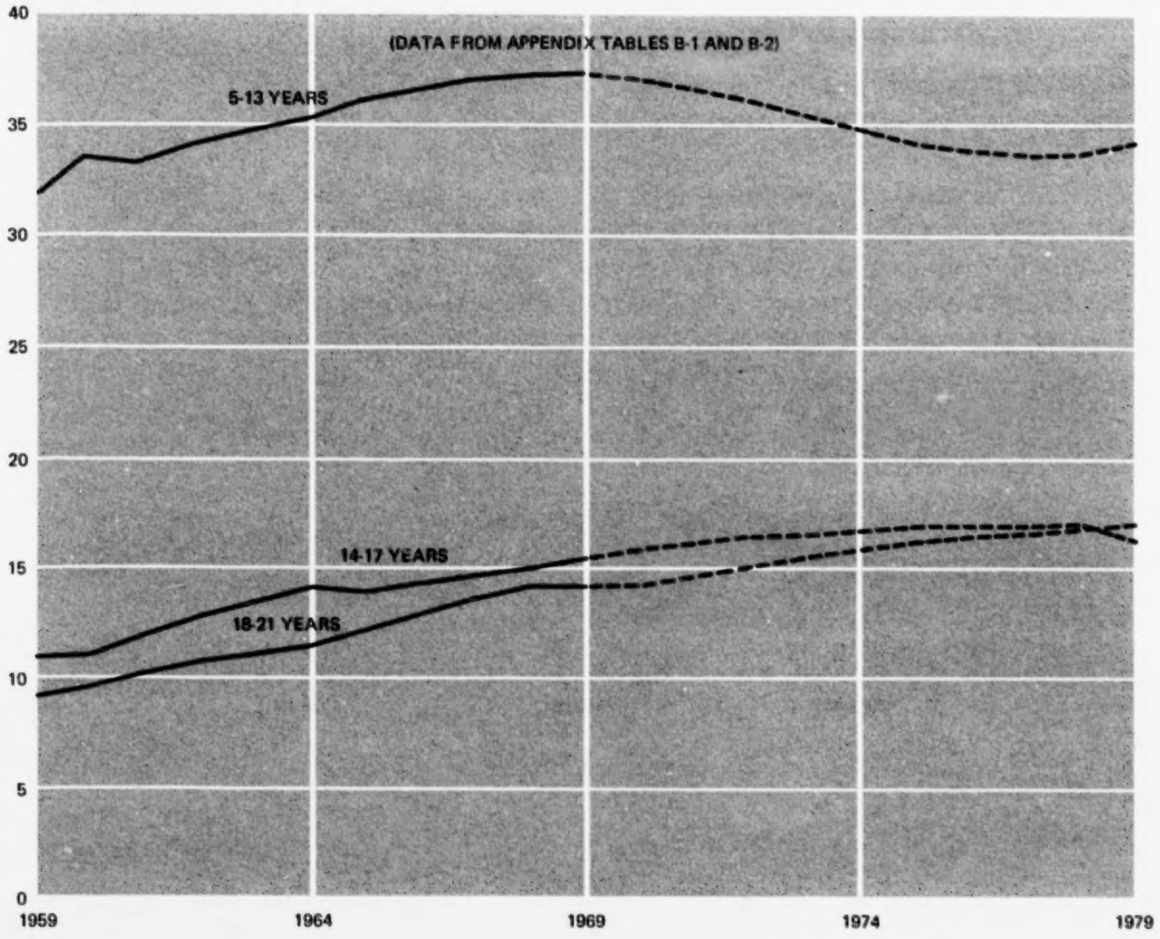

Table 1.—Summary of trends in education: United States, 1959, 1969, and 1979

[Number of persons in thousands]

Item	Number, 1959	Number, 1969	Percent change, 1959 to 1969	Number, 1979	Percent change, 1969 to 1979
	Population age groups (C series, appendix B)				
5-13	32,074	37,288	16	33,924	–9
14-17	11,135	15,553	40	16,327	5
18	2,574	3,682	43	4,276	16
18-21	9,280	14,236	53	16,978	19
Composite age group[1]	2,172	3,423	58	4,141	21
	Enrollment in elementary and secondary schools (chapter II)				
Grades K-12	40,782	51,319	26	51,000	–1
K-8	31,511	36,897	17	34,600	–6
9-12	9,271	14,422	56	16,400	14
Public	35,182	45,619	30	45,600	0
Nonpublic	5,600	5,700	2	5,400	–5
	Enrollment in institutions of higher education (chapter II)				
Degree-credit	3,377	7,299	116	11,075	52
Men	2,161	4,317	100	6,251	45
Women	1,216	2,982	145	4,823	62
Full time	2,314	5,198	125	7,669	48
Full-time equivalent	2,665	5,891	121	8,792	49
First time	822	1,699	107	2,477	46
Undergraduate[2]	3,046	6,411	110	9,435	47
Graduate	331	889	169	1,640	84
4-year institutions	2,968	5,902	99	8,629	46
2-year institutions	410	1,397	241	2,446	75
Public control	1,984	5,260	165	8,671	65
Nonpublic control	1,393	2,040	46	2,403	18
Nondegree-credit	194	618	219	1,183	91
Men	137	379	177	691	82
Women	57	239	319	492	106
Full time	78	288	269	547	90
Full-time equivalent	112	381	240	725	90
4-year institutions	41	72	76	126	75
2-year institutions	153	546	257	1,058	94
Public control	149	580	289	1,135	96
Nonpublic control	45	38	–16	48	26
	High school graduates (chapter III)				
Total graduates	1,864	2,978	60	3,759	26
Men	898	1,478	65	1,901	29
Women	966	1,500	55	1,858	24
Public control	1,633	2,658	63	3,439	29
Nonpublic control	231	320	39	320	0

See footnotes at end of table.

Table 1.—Summary of trends in education: United States, 1959, 1969, and 1979—Continued

[Number of persons in thousands]

Item	Number, 1959	Number, 1969	Percent change, 1959 to 1969	Number, 1979	Percent change, 1969 to 1979
	Earned degrees (chapter III)				
Total degrees	476.7	1,032.5	117	1,628.0	58
Men	313.8	616.9	97	920.5	49
Women	162.9	415.7	155	707.6	70
Bachelor's and first-professional	389	784	102	1,133	45
Men	253	456	80	608	33
Women	136	328	141	525	60
Master's	77.7	219.2	182	432.5	97
Men	52.0	135.4	160	257.9	90
Women	25.7	83.9	226	174.6	108
Doctor's (except first-professional)	9.8	29.3	199	62.5	113
Men	8.8	25.5	190	54.6	114
Women	1.0	3.8	280	8.0	111
	Instructional staff in elementary and secondary schools (chapter IV)[3]				
Classroom teachers	1,531	2,241	46	2,320	4
Elementary	952	1,255	32	1,217	–3
Secondary	580	985	70	1,104	12
Public control	1,355	2,014	49	2,089	4
Nonpublic control	176	227	29	231	2
Other instructional staff	108	256	137	332	30
	Professional staff in institutions of higher education (chapter IV)				
For instruction	338	700	107	986	41
4-year institutions	304	592	95	799	35
2-year institutions	34	108	218	187	73
Public control	190	479	152	739	54
Nonpublic control	148	221	49	247	12
For administration and services	44	91	107	124	36
For organized research	37	80	116	112	40

See footnotes at end of table.

Table 1.—Summary of trends in education: United States, 1959, 1969, and 1979—Continued

Item	Amount, 1959-60	Amount, 1969-70	Percent change, 1959-60 to 1969-70	Amount, 1979-80	Percent change, 1969-70 to 1979-80
Expenditures by elementary and secondary schools, in billions of constant 1969-70 dollars (chapter V)					
Total expenditures[4]	$23.9	$45.4	90	$55.2	22
Public control	21.1	40.8	93	49.7	22
Nonpublic control	2.8	4.6	64	5.5	20
Expenditures by institutions of higher education in billions of constant 1969-70 dollars (chapter V)					
Total expenditures[4]	$8.9	$24.9	180	$42.2	69
Public control	5.0	16.3	226	28.7	76
Nonpublic control	3.9	8.6	121	13.5	57
Average charge by institutions of higher education to full-time undergraduate students in constant 1969-70 dollars (chapter VI)					
Public control	$1,057	$1,198	13	$1,367	14
Nonpublic control	1,965	2,520	28	3,162	25

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[1] For content of this age group, see "Estimation Methods," in appendix A and footnote 2 of table B-2, appendix B.

[2] Undergraduate enrollment includes first-time enrollment.

[3] Other instructional staff includes principals, supervisors, librarians, and guidance and psychological personnel.

[4] Includes current expenditures, interest, and capital outlay.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

CHAPTER II

Enrollment

Velma S. Southard and *Martin M. Frankel*

All levels (table 2)

Total fall enrollment (elementary, secondary, and higher education) increased from 44 million in 1959 to 59 million in 1969 and is expected to be 63 million in 1979. These totals include daytime enrollment in all regular public and nonpublic (parochial and nonsectarian) elementary and secondary schools; the degree-credit enrollment in publicly and privately controlled institutions of higher education in programs leading to a bachelor's or higher degree; and nondegree-credit enrollment in programs that extend not more than 3 years beyond high school and are designed to prepare for a technical, semiprofessional, or craftsman-clerical position.

Excluded from the enrollments in institutions of higher education are adult education courses of regular length, short courses of any kind, and correspondence, television, or radio courses, some of which are degree-credit courses. Excluded from the enrollments in elementary and secondary schools are: (1) those in public and nonpublic subcollegiate, vocational, technical, and trade schools, unless these are a part of the regular school system; (2) enrollment in evening classes in regular public schools; and (3) enrollment in elementary and secondary grades in public and nonpublic residential schools for exceptional children, Federal schools for Indians, schools on Federal installations, and subcollegiate departments of public and nonpublic institutions of higher education. These enrollments also exclude children aged 3 to 6 years enrolled in independent public and nonpublic nursery schools and kindergartens (exclusively preprimary schools). However, estimates of the latter enrollment are shown in table 2 as a separate item.

The projection of fall enrollments shown in table 2 is based on the following assumptions: (1) The percentage of school-age persons enrolling in school and the retention rates of those already in school will continue the 1959 to 1969 trends, and (2) the school-age populations on which the projections are based will remain through 1979 substantially as now estimated and projected by the Bureau of the Census. These population bases are shown in appendix B, tables B-1 and B-2.

Elementary and secondary day schools (tables 3, 4)

Fall enrollment in regular elementary and secondary day schools (table 3) increased from 41 million in 1959 to 51 million in 1969, and is expected to remain at approximately 51 million through 1979. The 1969 enrollment excludes an estimated total of 0.3 million enrolled in public and nonpublic schools such as residential schools for exceptional children, subcollegiate departments of public and nonpublic institutions of higher education, Federal schools for Indians, and schools on Federal installations. It also excludes an estimated 1.4 million between the ages of 3 and 6 enrolled in independent nursery schools and kindergartens and an estimated 1.5 million in "special" (business and trade) schools.[1]

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[1] U.S. Department of Commerce, Bureau of the Census, "Current Population Reports, Population Characteristics, School Enrollment: October 1969," Series P-20, No. 206, October 5, 1970.

Increases in the next decade will be at the high school level because some of the children progressing through high school in those years were born in the high-birth years before 1960, and because enrollment rates of persons of high school age are continuing to increase. Total enrollment in grades 9 through 12 rose from 9 million in 1959 to 14 million in 1969 and is expected to be 16 million in 1979.

Enrollment in kindergarten and grades through 8 is expected to decrease by over 2.5 million between 1970 and 1977 and then to begin a slow upward climb as the increasing numbers of women in the child-bearing ages offset the decreasing fertility rates. (The fertility rate is defined as the average number of children born per 1,000 women between the ages of 15 and 45 years.) The proportion of children of elementary school age who are enrolled in school is already so high (about 99 percent, if 5-year-olds are excluded) that any increase in enrollment rates for this age group will be minimal. Enrollment in kindergarten through grade 8 increased from about 32 million in 1959 to 37 million in 1969 but is expected to be less than 35 million in 1979.

Enrollment in schools organized as secondary (see appendix A, "Glossary," for definition of elementary and secondary schools) increased from 12 million in 1959 to nearly 20 million in 1969 and is expected to be about 22 million in 1979. The enrollment in secondary schools is larger than the enrollment in grades 9 through 12 as shown in tables 2 and 3, because it includes all of the grade 9 through 12 enrollment as well as the enrollment in grades 7 and 8 in junior high schools. It may be even higher than it appears to be in table 4 because some State departments of education report only by grade even though some of their schools are organized on an elementary and secondary basis.

The reported enrollment in elementary schools is smaller than that in kindergarten through grade 8 (tables 2 and 3) because it excludes enrollment in grades 7 and 8 in junior high schools. The reported enrollment in elementary schools increased from less than 29 million in 1959 to nearly 32 million in 1969 but is expected to be only 29 million in 1979.

Public school enrollment (tables 3, 4)

Projections of enrollment in regular public day schools are shown in table 3 by grade group and in table 4 by organizational level.

The public school enrollment by grade was projected for each grade separately and then summed to obtain the projections by grade group. The projections by grade were derived (1) by applying projected age-specific enrollment rates to 5- and 6-year-olds (Bureau of the Census population series C) and (2) by applying projected grade-retention rates to children in grades 1 through 11.

It should be noted that children entering kindergarten through fall 1974 and first grade through fall 1975 are already born; and thus the number is not dependent on assumed fertility rates. By 1979, the last year shown in the tables, only projections of kindergarten through grade 4 depend on assumed fertility rates. For an explanation of the fertility rates used by the Bureau of the Census for projecting series C population, see appendix B, table B-1 footnotes.

The enrollment in regular public day schools by organizational level was derived by assuming that the percentages of the 7th- and 8th-grade enrollment organized as secondary school enrollment will continue to increase as it has in the past 10 years.

For a more detailed description of the assumptions and methods used in projecting public school enrollment, see footnotes to tables 3 and 4 and, in appendix A, to table A-1.

Nonpublic school enrollment (tables 3, 4)

About 10 percent of regular day grade school enrollment is now in nonpublic schools, mostly (about 90 percent) in the parochial schools. Because of the current fiscal difficulties of these schools, the projection of nonpublic school enrollment by conventional trend methods is not feasible. The projections by grade group included in table 3 are, therefore, estimates based on the scanty information available to the Office of Education at this time. (Enrollments lost to the nonpublic schools will be shifted to the public schools, so the projected total public and nonpublic enrollment should not be affected.)

The enrollments in nonpublic schools by organizational level shown in table 4 are the same as those by grade group shown in table 3 because almost all the nonpublic school 7th and 8th graders in the past have been in the elementary schools.

Institutions of higher education (table 5)

Fall enrollment in both 4-year and 2-year institutions of higher education includes resident and extension, day and evening, full-time and part-time students who are (1) taking work creditable toward a bachelor's or higher degree or (2) in occupational or general studies programs not chiefly creditable toward a bachelor's degree but preparing for a technical, semiprofessional, or craftsman-clerical position. The total enrollment (table 5) increased from an estimated 3.6 million in 1959 to 7.9 million in 1969 and is expected to be over 12.2 million in 1979 of which nearly 10 percent are expected to be in occupational or general studies.

Degree-credit enrollment (tables 6-8, 13)

Opening fall enrollment in courses creditable toward a bachelor's or higher degree increased from 3.4 million in 1959 to an estimated 7.3 million in 1969 and is expected to climb to 11.1 million by 1979. These figures include graduate, undergraduate, and first-professional enrollment in degree-credit courses in both 4-year and 2-year institutions.

Of the 11.1 million students expected to be taking work toward a bachelor's or higher degree in 1979, 1.6 million, or 14 percent, are expected to be taking graduate work beyond the bachelor's or first-professional level. Of the 9.4 million taking work creditable toward undergraduate or first-professional degrees, about one-fourth will be entering college for the first time. (See p. 16 and table 13).

Projected totals of opening fall degree-credit enrollment by sex and attendance status and by control of institution attended are shown in table 6; for 4-year institutions, in table 7; and for 2-year institutions, in table 8. The projections were made separately for men and women by type and control of institution attended and summed to get the totals shown in the tables. The projections are based on the assumption that the percentage of college-age people enrolled in college in each of the aforementioned enrollment categories will continue to increase from 1969 to 1979 as it did from 1959 to 1969. Attendance status was projected by holding constant, through 1979, the 1968 percentage of full-time enrollment in each enrollment category. The wide differences in these percentages by enrollment category can be seen in appendix A, table A-1. This table also shows the estimating equations for each enrollment category.

Nondegree-credit enrollment (tables 9-11)

Opening fall enrollment in nondegree-credit courses (occupational or general studies programs) in all institutions of higher education rose from an estimated 0.2 million in 1959 to 0.6 million in 1969 and is expected to be nearly 1.2 million in 1979. Almost 94 percent of this enrollment was in publicly controlled institutions in 1969. Less than half of it was full-time, and about 88 percent was in 2-year institutions. (These enrollments were shown for

4-year and 2-year institutions separately for the first time in the 1969 edition of this report series.)

The projection of nondegree-credit enrollment is based on the assumption that, within the categories of sex of student and control and type of institution, nondegree-credit enrollment expressed as a percentage of the population 18-21 years of age will follow the 1959 to 1969 trends. Full-time attendance status was projected by holding constant to 1979 the estimated percentage of nondegree-credit enrollment that was full time in 1969.

Full-time-equivalent enrollment (table 12)

Estimated full-time-equivalent opening fall enrollment in degree-credit and nondegree-credit courses increased from 2.8 million in 1959 to 6.3 million in 1969 and is expected to be 9.5 million in 1979. Of this enrollment, 72 percent was in publicly controlled institutions in 1969, and 79 percent is expected to be in publicly controlled institutions in 1979. Ninety-two percent of the 1979 full-time-equivalent enrollment is expected to be in degree-credit courses.

The estimate of full-time-equivalent degree-credit enrollment is based on 33 percent of part-time degree-credit enrollment plus full-time degree-credit enrollment. Full-time-equivalent nondegree-credit enrollment is based on 28 percent of part-time nondegree-credit enrollment plus full-time nondegree-credit enrollment. These percentages for converting part-time enrollment to full-time enrollment were taken from the 1964 sample survey of full-time-equivalent enrollment and credit hours.

Degree-credit enrollment by level (table 13)

Degree-credit enrollment data are available for three levels either directly from reports or by supplemental estimates. Those levels are first-time enrollment (first time enrolled in any institution of higher education), undergraduate and first-professional enrollment combined, and graduate enrollment. (First-time enrollment, shown separately in tables 14, 15, and 16, is also included with undergraduate and first-professional enrollment, tables 18 and 19, and with enrollment in 2-year institutions, table 8). Table 13 summarizes the relationships by type of institution of the different levels of degree-credit enrollment.

First-time degree-credit enrollment (tables 14, 15, 16)

First-time opening fall enrollment in degree-credit courses increased from 0.8 million in 1959 to 1.7 million in 1969, and is expected to be 2.5 million in 1979. Almost 75 percent of this enrollment was in publicly controlled institutions in 1969, compared to about 61 percent in 1959. Over four-fifths of first-time enrollment in 1969 was full time.

Projected first-time degree-credit enrollment in all institutions of higher education is shown in table 14. It is based on the assumption that first-time enrollment by sex and by control and type of institution, as a percentage of the population averaging 18 years of age, will continue the 1959 to 1969 trends. The projections are shown separately for 4-year and 2-year institutions in tables 15 and 16.

Resident graduate enrollment (table 17).

Estimated resident graduate enrollment increased from 0.3 million in 1959 to 0.9 million in 1969 and is expected to be 1.6 million in 1979. These estimates and projections are confined to resident graduate students because we have no separate data on extension graduate students. (Extension graduate students are included with resident and extension undergraduate and first-professional students in tables 18 and 19.) The estimates of resident graduate enrollment were derived from several sources. The principal sources were the comprehensive surveys of 1959, 1961, 1963, and 1967; and the opening fall enrollment surveys of 1967 and 1968. The full-time and part-time attendance status estimates for 1967 to 1969 were based on the unpublished 1967 comprehensive survey of enrollment and the 1968 opening fall survey of enrollment. For a detailed statement of the methods used in estimating graduate enrollment, see appendix A under "Estimation Methods."

The projection of graduate enrollment was based on the assumption that the trends shown from 1959 to 1969 for estimated resident graduate enrollment as a percentage of all degree-credit enrollment in 4-year institutions will continue to 1979. It is assumed that full-time graduate enrollment as a percentage of all graduate enrollment will remain approximately constant to 1979 at the estimated 1969 level.

Undergraduate and first-professional enrollment (tables 8, 18, 19)

Undergraduate and first-professional enrollment in 4-year institutions was estimated by subtracting estimated resident graduate enrollment from the estimated total of opening fall degree-credit resident and extension enrollment in these institutions.

Estimated undergraduate and first-professional enrollment (table 19) in 4-year institutions rose from 2.6 million in 1959 to 5.0 million in 1969 and, on the basis of the 1959 to 1969 trend, is expected to be 7.0 million in 1979. Undergraduate enrollment in 2-year institutions (table 8) more than tripled from 1959 to 1969 (0.4 million to 1.4 million), and is expected to reach 2.4 million by 1979.

Table 2.–Summary of enrollment in educational institutions, by institutional level and control: United States, fall 1959 to 1979

[In thousands]

Year (fall)	Total enrollment (excluding independent nursery schools and kindergartens)			Institutions of higher education[1]		Regular elementary and secondary day schools[2]				Estimated independent nursery schools and kindergartens[3]	
						Grades K-8		Grades 9-12			
	Total	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1959	44,354	37,316	7,038	2,134	1,438	26,911	4,600	8,271	1,000	....	....
1960	45,969	38,557	7,412	2,276	1,512	27,692	4,800	8,589	1,100	....	....
1961	47,411	39,933	7,478	2,469	1,578	28,095	4,800	9,369	1,100	....	....
1962	49,253	41,502	7,751	2,753	1,651	28,637	4,900	10,112	1,200	....	....
1963	51,253	43,253	8,000	3,066	1,700	29,304	5,000	10,883	1,300	....	....
1964	52,996	44,884	8,112	3,468	1,812	30,025	5,000	11,391	1,300	236	649
1965	54,394	46,143	8,251	3,970	1,951	30,563	4,900	11,610	1,400	305	799
1966	55,729	47,388	8,341	4,349	2,041	31,145	4,900	11,894	1,400	374	842
1967	56,803	48,707	8,096	4,816	2,096	31,641	4,600	12,250	1,400	467	897
1968	58,257	50,375	7,882	5,431	2,082	32,226	4,400	12,718	1,400	437	920
1969	59,237	51,459	7,778	5,840	2,078	32,597	4,300	13,022	1,400	326	1,024
	PROJECTED[4]										
1970	59,875	52,169	7,706	6,169	2,106	32,600	4,200	13,400	1,400	392	1,043
1971	60,314	52,662	7,652	6,562	2,152	32,300	4,100	13,800	1,400	457	1,068
1972	60,713	53,101	7,612	7,001	2,212	31,900	4,000	14,200	1,400	521	1,120
1973	61,119	53,450	7,669	7,450	2,269	31,400	4,000	14,600	1,400	607	1,200
1974	61,399	53,681	7,718	7,881	2,318	30,900	4,000	14,900	1,400	697	1,309
1975	61,564	53,805	7,759	8,305	2,359	30,400	4,000	15,100	1,400	796	1,429
1976	61,994	54,203	7,791	8,703	2,391	30,200	4,000	15,300	1,400	901	1,554
1977	62,283	54,470	7,813	9,070	2,413	30,100	4,000	15,300	1,400	1,011	1,686
1978	62,771	54,938	7,833	9,438	2,433	30,200	4,000	15,300	1,400	1,129	1,823
1979	63,257	55,406	7,851	9,806	2,451	30,600	4,000	15,000	1,400	1,253	1,966

[1] Includes degree-credit and nondegree-credit enrollments.

[2] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and schools on Federal installations.

[3] Estimates of independent nursery school and kindergarten enrollments are based on the difference between all nursery school and kindergarten enrollments of children aged 3, 4, 5, and 6 years, as reported by the Bureau of the Census, and nursery school and kindergarten enrollments reported by the regular public and private schools.

[4] For assumptions on which projections of elementary, secondary, and higher education enrollments are based and for projection methods used, see footnotes to tables 3, 6, and 9, and methodology in appendix A, table A-1.

The projections of enrollments in independent nursery schools and kindergartens are based on the following assumptions: (1) Enrollments in all nursery schools and kindergartens of children aged 3, 4, 5, and 6 years will follow the 1964-69 trends of enrollment in these schools at each age level as a percentage of the total population of that age; and (2) enrollments in independent nursery schools and kindergartens of children aged 3, 4, 5, and 6 years will be the difference between enrollment in all nursery schools and kindergartens, as reported by the Census Bureau, and enrollment in nursery schools and kindergartens reported by regular public and private schools.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Nursery school and kindergarten enrollment data are based on U.S. Department of Health, Education, and Welfare, Office of Education circulars: "Nursery-kindergarten Enrollment of Children under Six," October 1964 through 1969. Sources for enrollments in regular elementary and secondary schools and institutions of higher education are given on tables 3, 6, and 9.

Table 3.—Enrollment in grades K-8 and 9-12 of regular day schools, by institutional control United States, fall 1959 to 1979[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K-12	K-8	9-12	K-12	K-8[3]	9-12[3]	K-12	K-8	9-12
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1959	40,782	31,511	9,271	35,182	26,911	8,271	5,600	4,600	1,000
1960	42,181	32,492	9,689	36,281	27,692	8,589	5,900	4,800	[4]1,100
1961	43,364	32,895	10,469	37,464	28,095	9,369	5,900	[4]4,800	[4]1,100
1962	44,849	33,537	11,312	38,749	28,637	10,112	6,100	4,900	1,200
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	[4]1,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	[4]1,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	[4]4,900	[4]1,400
1966	49,339	36,045	13,294	43,039	31,145	11,894	6,300	4,900	1,400
1967	49,891	36,241	13,650	43,891	31,641	12,250	6,000	4,600	1,400
1968	50,744	36,626	14,118	44,944	32,226	12,718	5,800	[4]4,400	[4]1,400
1969	51,319	36,897	14,422	45,619	32,597	13,022	5,700	4,300	1,400
					PROJECTED[5]				
1970	51,600	36,800	14,800	46,000	32,600	13,400	5,600	4,200	1,400
1971	51,600	36,400	15,200	46,100	32,300	13,800	5,500	4,100	1,400
1972	51,500	35,900	15,600	46,100	31,900	14,200	5,400	4,000	1,400
1973	51,300	35,400	16,000	45,900	31,400	14,600	5,400	4,000	1,400
1974	51,200	34,900	16,300	45,800	30,900	14,900	5,400	4,000	1,400
1975	51,000	34,400	16,500	45,600	30,400	15,100	5,400	4,000	1,400
1976	50,900	34,200	16,700	45,500	30,200	15,300	5,400	4,000	1,400
1977	50,800	34,100	16,700	45,400	30,100	15,300	5,400	4,000	1,400
1978	50,900	34,200	16,700	45,500	30,200	15,300	5,400	4,000	1,400
1979	51,000	34,600	16,400	45,600	30,600	15,000	5,400	4,000	1,400

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Fall enrollment in public schools not reported by grade prior to 1962; grade breakdown for years 1959 through 1961 estimated from school year enrollment.

[4] Actual data from Office of Education surveys.

[5] The projection of fall enrollment in regular day schools is based on the following assumptions: (1) Enrollment rates of the 5- and 6-year-old population in public school kindergarten and grade 1 will follow the 1959-69 trends; (2) the retention rates of public school grade 7 from grade 6 will follow the 1959-69 trend with the restriction that the rate cannot exceed 104 percent; (3) the retention rates of public school grade 9 from grade 8 will follow the 1959-69 trend with the restriction that the rate cannot exceed 105 percent; (4) the retention rates of all other public school grades will follow the 1959-69 trends with the restriction that they cannot exceed 100 percent; and (5) enrollment in grades K-8 in regular nonpublic day schools will decrease to 1972 and then remain constant to 1979; grades 9-12 will remain constant at the 1968 level.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of Public Schools," fall 1964 through 1969; (2) "Enrollment, Teachers, and Schoolhousing," fall 1959 through 1963; (3) "Statistics of State School Systems," 1959-60 and 1961-62; (4) Prepublication data from "Statistics of Nonpublic Elementary and Secondary Schools, 1968-69"; (5) "Statistics of Nonpublic Elementary and Secondary Schools, 1965-66"; (6) "Nonpublic School Enrollment in Grades 9-12, Fall 1964, and Graduates, 1963-64"; (7) "Statistics of Nonpublic Elementary Schools, 1961-62"; and (8) "Statistics of Nonpublic Secondary Schools, 1960-61."

The population projections as of October 1, of 5- and 6-year-olds on which the enrollment projections in kindergarten and grade 1 are based, are consistent with

Footnotes continued on page 21.

Table 4.—Enrollment in regular day schools, by institutional control and organizational level: United States, fall 1959 to 1979[1]

[in thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K-12	Elementary	Secondary	K-12	Elementary	Secondary	K-12	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1959 ...	40,782	28,506	12,276	35,182	23,906	11,276	5,600	4,600	1,000
1960 ...	42,181	29,150	13,031	36,281	24,350	11,931	5,900	4,800	[3]1,100
1961 ...	43,364	29,403	13,961	37,464	24,603	12,861	5,900	[3]4,800	[3]1,100
1962 ...	44,849	30,164	14,685	38,749	25,264	13,485	6,100	4,900	1,200
1963 ...	46,487	30,775	15,712	40,187	25,775	14,412	6,300	5,000	[3]1,300
1964 ...	47,716	31,221	16,495	41,416	26,221	15,195	6,300	5,000	[3]1,300
1965 ...	48,473	31,570	16,904	42,173	26,670	15,504	6,300	[3]4,900	[3]1,400
1966 ...	49,339	32,005	17,334	43,039	27,105	15,934	6,300	4,900	1,400
1967 ...	49,891	31,972	17,919	43,891	27,372	16,519	6,000	4,600	1,400
1968 ...	50,744	31,763	18,981	44,944	27,363	17,581	5,800	[3]4,400	[3]1,400
1969 ...	51,319	31,755	19,563	45,619	27,455	18,163	5,700	4,300	1,400
				PROJECTED[4]					
1970 ...	51,600	31,500	20,100	46,000	27,300	18,700	5,600	4,200	1,400
1971 ...	51,600	30,900	20,700	46,100	26,800	19,300	5,500	4,100	1,400
1972 ...	51,500	30,300	21,200	46,100	26,300	19,800	5,400	4,000	1,400
1973 ...	51,300	29,600	21,800	45,900	25,600	20,400	5,400	4,000	1,400
1974 ...	51,200	29,000	22,200	45,800	25,000	20,800	5,400	4,000	1,400
1975 ...	51,000	28,500	22,400	45,600	24,500	21,000	5,400	4,000	1,400
1976 ...	50,900	28,300	22,600	45,500	24,300	21,200	5,400	4,000	1,400
1977 ...	50,800	28,300	22,500	45,400	24,300	21,100	5,400	4,000	1,400
1978 ...	50,900	28,600	22,300	45,500	24,600	20,900	5,400	4,000	1,400
1979 ...	51,000	29,100	21,800	45,600	25,100	20,400	5,400	4,000	1,400

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, schools on Federal installations, and other schools not in the regular school system.

[2] Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Actual data from Office of Education surveys.

[4] The projection of fall enrollment in regular public day schools by organizational level is based on the assumption that the percentage of enrollment in grades 7 and 8 that will be organized as elementary and as secondary enrollment will follow the 1959-69 trend.

The projection of regular fall enrollment in nonpublic schools by organizational level is based on the assumption that substantially all nonpublic enrollment in grades 7 and 8 will continue as elementary enrollment.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of Public Schools," fall 1964 through 1969; (2) "Enrollment, Teachers, and Schoolhousing," fall 1959 through 1963; (3) "Statistics of State School Systems," 1959-60 and 1961-62; (4) prepublication data from "Statistics of Nonpublic Elementary and Secondary Schools, 1968-69"; (5) "Statistics of Nonpublic Elementary and Secondary Schools, 1965-66"; (6) "Nonpublic School Enrollment in grades 9-12, Fall 1964, and Graduates, 1963-64"; (7) "Statistics of Nonpublic Elementary Schools, 1961-62"; and (8) "Statistics of Nonpublic Secondary Schools, 1960-61."

Footnotes—Continued

Series C population projections in U.S. Department of Commerce, Bureau of the Census, "Current Population Reports," Series P-25, No. 448, August 6, 1970. The B, C, and D population projections, together with definitions of each series, are shown in appendix B, table B-1.

For enrollment projections based on population projection series B and series D, see appendix B, tables B-4 and B-5.

Table 5.—Summary of enrollment in all institutions of higher education, by degree-credit status and institutional type: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total degree-credit and nondegree-credit enrollment	Degree-credit			Nondegree-credit		
		Total	4-year	2-year	Total	4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959	3,571	3,377	2,968	410	194	41	153
1960	3,789	3,583	3,131	451	206	40	166
1961	4,047	3,861	3,343	518	186	38	148
1962	4,404	4,175	3,585	590	229	45	184
1963	4,766	4,495	3,870	625	271	52	220
1964	5,280	4,950	4,239	711	330	52	278
1965	5,921	5,526	4,685	841	395	63	332
[1] 1966	6,390	5,928	4,984	945	462	80	381
[1] 1967	6,912	6,406	5,325	1,081	505	73	432
1968	7,513	6,928	5,639	1,289	585	82	503
[1] 1969	7,917	7,299	5,902	1,397	618	72	546
			PROJECTED[2]				
1970	8,274	7,608	6,124	1,484	666	78	589
1971	8,714	7,995	6,408	1,586	719	82	638
1972	9,214	8,433	6,732	1,701	781	88	692
1973	9,719	8,876	7,058	1,819	843	95	748
1974	10,198	9,295	7,364	1,932	903	100	803
1975	10,664	9,702	7,658	2,044	962	105	857
1976	11,095	10,074	7,924	2,149	1,021	112	909
1977	11,484	14,408	8,161	2,248	1,076	117	959
1978	11,871	10,742	8,395	2,346	1,129	121	1,008
1979	12,258	11,075	8,629	2,446	1,183	126	1,058

[1] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

[2] For assumptions underlying these projections and for methods of projecting, see footnotes to tables 6 and 9, and to table A-1 in appendix A.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 (unpublished); and (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961.

Table 6.—Total degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment[1]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959	3,377,273	2,160,886	1,216,387	2,314,000	1,063,000	1,984,022	1,393,251
1960	3,582,726	2,256,877	1,325,849	2,466,000	1,117,000	2,115,893	1,466,833
1961	3,860,643	2,408,601	1,452,042	2,714,000	1,147,000	2,328,912	1,531,731
1962	4,174,936	2,587,291	1,587,645	2,902,101	1,272,835	2,573,720	1,601,216
1963	4,494,626	2,772,562	1,722,064	3,068,469	1,426,157	2,848,454	1,646,172
1964	4,950,173	3,032,992	1,917,181	3,417,796	1,532,377	3,179,527	1,770,646
1965	5,526,325	3,374,603	2,151,722	3,910,848	1,615,477	3,624,442	1,901,883
[3] 1966	5,928,000	3,577,000	2,351,000	4,232,000	1,696,000	3,940,000	1,988,000
[3] 1967	6,406,000	3,822,000	2,584,000	4,556,000	1,850,000	4,360,000	2,046,000
1968	6,928,115	4,119,002	2,809,113	4,937,193	1,990,922	4,891,743	2,036,372
[3] 1969	7,299,000	4,317,000	2,982,000	5,198,000	2,101,000	5,260,000	2,040,000
	PROJECTED[4]						
1970	7,608,000	4,474,000	3,135,000	5,401,000	2,207,000	5,542,000	2,067,000
1971	7,995,000	4,675,000	3,320,000	5,659,000	2,336,000	5,882,000	2,113,000
1972	8,433,000	4,902,000	3,531,000	5,952,000	2,481,000	6,262,000	2,171,000
1973	8,876,000	5,134,000	3,742,000	6,247,000	2,630,000	6,650,000	2,226,000
1974	9,295,000	5,352,000	3,943,000	6,523,000	2,772,000	7,023,000	2,273,000
1975	9,702,000	5,562,000	4,139,000	6,789,000	2,913,000	7,388,000	2,314,000
1976	10,074,000	5,751,000	4,323,000	7,031,000	3,043,000	7,729,000	2,345,000
1977	10,408,000	5,915,000	4,494,000	7,245,000	3,163,000	8,042,000	2,366,000
1978	10,742,000	6,080,000	4,661,000	7,458,000	3,284,000	8,357,000	2,385,000
1979	11,075,000	6,251,000	4,823,000	7,669,000	3,405,000	8,671,000	2,403,000

[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] Estimated for years prior to 1962. See appendix A, "Estimation Methods."

[3] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

The estimates for 1966 and 1967 differ from the estimates published in the 1968 edition of "Projections of Educational Statistics" because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[4] The projection of total degree-credit enrollment in all institutions by sex and institutional control is based on the assumption that enrollment in these institutions, expressed as a percentage of population aged 18-21 years, will follow the 1959-69 trend to 1979 in each enrollment category.

The projection of total degree-credit enrollment in all institutions by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1968 opening fall enrollment survey, with minor adjustments, will remain constant to 1979.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) enrollment in Higher Education," annually, 1959 through 1969; (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961.

Population on which projections are based is shown in appendix B, table B-2.

Table 7.—Total degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment[1]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959	2,967,558	1,901,132	1,066,426	2,088,000	879,000	1,628,055	1,339,503
1960	3,131,393	1,974,722	1,156,671	2,219,000	912,000	1,723,583	1,407,810
1961	3,342,718	2,088,445	1,254,273	2,421,000	922,000	1,872,531	1,470,187
1962	3,585,407	2,221,667	1,363,740	2,584,908	1,000,499	2,054,463	1,530,944
1963	3,869,837	2,385,902	1,483,935	2,741,251	1,128,586	2,297,146	1,572,691
1964	4,239,305	2,593,483	1,645,822	3,021,411	1,217,894	2,558,668	1,680,637
1965	4,684,888	2,852,757	1,832,131	3,414,545	1,270,343	2,886,552	1,798,336
[3] 1966	4,984,000	3,000,000	1,984,000	3,669,000	1,315,000	3,100,000	1,883,000
[3] 1967	5,325,000	3,170,000	2,155,000	3,940,000	1,385,000	3,393,000	1,933,000
1968	5,638,616	3,336,709	2,301,907	4,198,486	1,440,130	3,722,602	1,916,014
[3] 1969	5,902,000	3,477,000	2,426,000	4,395,000	1,507,000	3,965,000	1,937,000
				PROJECTED[4]			
1970	6,124,000	3,583,000	2,542,000	4,548,000	1,576,000	4,167,000	1,957,000
1971	6,408,000	3,723,000	2,685,000	4,747,000	1,661,000	4,412,000	1,996,000
1972	6,732,000	3,884,000	2,847,000	4,974,000	1,758,000	4,687,000	2,044,000
1973	7,058,000	4,047,000	3,011,000	5,202,000	1,856,000	4,967,000	2,091,000
1974	7,364,000	4,198,000	3,166,000	5,414,000	1,950,000	5,235,000	2,129,000
1975	7,658,000	4,342,000	3,316,000	5,615,000	2,043,000	5,496,000	2,161,000
1976	7,924,000	4,469,000	3,456,000	5,797,000	2,128,000	5,740,000	2,184,000
1977	8,161,000	4,576,000	3,585,000	5,955,000	2,206,000	5,964,000	2,197,000
1978	8,395,000	4,684,000	3,712,000	6,111,000	2,285,000	6,187,000	2,209,000
1979	8,629,000	4,795,000	3,834,000	6,265,000	2,364,000	6,409,000	2,219,000

[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] Estimated for years prior to 1962. See appendix A, "Estimation Methods."

[3] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

The estimates for 1966 and 1967 differ from the estimates published in the 1968 edition of "Projections of Educational Statistics" because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[4] The projection of total degree-credit enrollment in 4-year institutions by sex and institutional control is based on the assumption that enrollment in these institutions, expressed as a percentage of population aged 18-21 years, will follow the 1959-69 trend to 1979 in each enrollment category.

The projection of total nondegree-credit enrollment in 4-year institutions by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1968 opening fall enrollment survey, with minor adjustments, will remain constant to 1979.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961.

Population on which projections are based is shown in appendix B, table B-2.

Table 8.—Total degree-credit enrollment in 2-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment[1]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959	409,715	259,754	149,961	226,000	184,000	355,967	53,748
1960	451,333	282,155	169,178	247,000	205,000	392,310	59,023
1961	517,925	320,156	197,769	293,000	225,000	456,381	61,544
1962	589,529	365,624	223,905	317,193	272,336	519,257	70,272
1963	624,789	386,660	238,129	327,218	297,571	551,308	73,481
1964	710,868	439,509	271,359	396,385	314,483	620,859	90,009
1965	841,437	521,846	319,591	495,454	345,983	737,890	103,547
[3] 1966	945,000	577,000	367,000	563,000	381,000	840,000	105,000
[3] 1967	1,081,000	652,000	429,000	616,000	465,000	968,000	113,000
1968	1,289,499	782,293	507,206	738,707	550,792	1,169,141	120,358
[3] 1969	1,397,000	840,000	557,000	803,000	594,000	1,294,000	103,000
				PROJECTED[4]			
1970	1,484,000	891,000	593,000	853,000	631,000	1,375,000	109,000
1971	1,586,000	952,000	635,000	912,000	675,000	1,469,000	117,000
1972	1,701,000	1,018,000	683,000	978,000	724,000	1,575,000	126,000
1973	1,819,000	1,087,000	731,000	1,045,000	774,000	1,683,000	135,000
1974	1,932,000	1,154,000	778,000	1,110,000	822,000	1,788,000	144,000
1975	2,044,000	1,220,000	824,000	1,174,000	870,000	1,891,000	152,000
1976	2,149,000	1,282,000	868,000	1,234,000	915,000	1,989,000	160,000
1977	2,248,000	1,339,000	909,000	1,291,000	957,000	2,079,000	169,000
1978	2,346,000	1,397,000	950,000	1,347,000	999,000	2,170,000	176,000
1979	2,446,000	1,456,000	990,000	1,404,000	1,042,000	2,262,000	184,000

[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] Estimated for years prior to 1962. See appendix A, "Estimation Methods."

[3] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

The estimates for 1967 differ from the estimates published in the 1968 edition of "Projections of Educational Statistics" because of data available from the 1967 comprehensive report of enrollment.

[4] The projection of total degree-credit enrollment in 2-year institutions by sex and institutional control is based on the assumption that enrollment in these institutions, expressed as a percentage of population aged 18-21 years, will follow the 1959-69 trend to 1979 in each enrollment category.

The projection of total degree-credit enrollment in 2-year institutions by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment, to total enrollment reported in the 1968 opening fall enrollment survey, with minor adjustments, will remain constant to 1979.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961.

Population on which projections are based is shown in appendix B, table B-2.

Table 9.—Nondegree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment]

Year (fall)	Non-degree-credit enrollment[1]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959	194,200	136,915	57,285	78,000	116,000	149,499	44,701
1960	206,000	147,000	59,000	83,000	123,000	161,000	46,000
1961	186,483	128,363	58,120	76,000	111,000	140,579	45,904
1962	229,000	155,000	74,000	95,000	134,000	179,000	50,000
1963	271,241	182,655	88,586	115,000	156,000	217,393	53,847
1964	329,847	215,721	114,126	140,000	190,000	288,181	41,666
1965	394,539	255,417	139,122	172,000	222,000	345,154	49,385
[3] 1966	462,000	279,000	183,000	207,000	255,000	409,000	53,000
[3] 1967	505,000	311,000	194,000	236,000	269,000	455,000	49,000
1968	584,976	358,647	226,329	272,962	312,014	538,909	46,067
[3] 1969	618,000	379,000	239,000	288,000	330,000	580,000	38,000
	PROJECTED[4]						
1970	666,000	405,000	261,000	310,000	356,000	627,000	39,000
1971	719,000	435,000	285,000	334,000	385,000	680,000	39,000
1972	781,000	468,000	312,000	362,000	418,000	739,000	41,000
1973	843,000	503,000	340,000	391,000	452,000	800,000	43,000
1974	903,000	536,000	367,000	418,000	485,000	858,000	45,000
1975	962,000	569,000	393,000	445,000	517,000	917,000	45,000
1976	1,021,000	601,000	420,000	472,000	548,000	974,000	46,000
1977	1,076,000	631,000	445,000	498,000	578,000	1,028,000	47,000
1978	1,129,000	660,000	469,000	522,000	607,000	1,081,000	48,000
1979	1,183,000	691,000	492,000	547,000	637,000	1,135,000	48,000

[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] Estimated for all years except 1968.

[3] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

The estimates for 1966 and 1967 differ from the estimates published in the 1968 edition of "Projections of Educational Statistics" because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[4] The projection of total nondegree-credit enrollment in all institutions by sex and institutional control is based on the assumption that enrollment, expressed as a percentage of population aged 18-21 years, will follow the 1959-69 trend to 1979 in each enrollment category.

The projection of total nondegree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1968 opening fall enrollment survey, with minor adjustments, will remain constant to 1979.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1963 through 1969; (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961.

Population on which projections are based is shown in appendix B, table B-1.

Table 10.—Nondegree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment]

Year (fall)	Non-degree-credit enrollment[1]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959	41,427	29,977	11,450	15,000	27,000	27,561	13,866
1960	40,000	29,000	11,000	14,000	26,000	27,000	13,000
1961	38,002	28,136	9,866	13,000	25,000	25,400	12,602
1962	45,000	32,000	13,000	16,000	29,000	30,000	15,000
1963	51,518	36,492	15,026	19,000	32,000	33,673	17,845
1964	51,789	36,582	15,207	20,000	32,000	34,261	17,528
1965	63,024	43,624	19,400	25,000	38,000	41,780	21,244
[3] 1966	80,000	47,000	33,000	33,000	47,000	59,000	21,000
[3] 1967	73,000	48,000	26,000	32,000	41,000	51,000	22,000
1968	82,179	50,589	31,590	36,166	46,013	61,576	20,603
[3] 1969	72,000	46,000	26,000	32,000	40,000	56,000	16,000
				PROJECTED[4]			
1970	78,000	48,000	29,000	35,000	43,000	60,000	17,000
1971	82,000	50,000	31,000	36,000	45,000	64,000	18,000
1972	88,000	53,000	35,000	39,000	49,000	69,000	19,000
1973	95,000	56,000	39,000	42,000	52,000	74,000	20,000
1974	100,000	58,000	42,000	45,000	55,000	78,000	22,000
1975	105,000	61,000	44,000	47,000	58,000	83,000	22,000
1976	112,000	64,000	48,000	50,000	62,000	89,000	23,000
1977	117,000	66,000	51,000	52,000	65,000	93,000	24,000
1978	121,000	67,000	54,000	54,000	67,000	96,000	25,000
1979	126,000	70,000	56,000	56,000	69,000	100,000	25,000

[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] Estimated for all years except 1968.

[3] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

The estimates for 1966 and 1967 differ from the estimates published in the 1968 edition of "Projections of Educational Statistics" because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[4] The projection of total nondegree-credit enrollment in 4-year institutions by sex and institutional control is based on the assumption that enrollment, expressed as a percentage of population aged 18-21 years, will follow the 1959-69 trend to 1979 in each enrollment category.

The projection of total nondegree-credit enrollment in 4-year institutions by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1968 opening fall enrollment survey, with minor adjustments, will remain constant to 1979.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1963 through 1969; (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961.

Population on which projections are based is shown in appendix B, table B-2.

Table 11.—Nondegree-credit enrollment in 2-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment]

Year (fall)	Non-degree-credit enrollment[1]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959	152,773	106,938	45,835	64,000	89,000	121,938	30,835
1960	166,000	119,000	47,000	69,000	97,000	134,000	32,000
1961	148,481	100,227	48,254	62,000	86,000	115,179	33,302
1962	184,000	123,000	61,000	79,000	105,000	149,000	35,000
1963	219,723	146,163	73,560	96,000	124,000	183,721	36,002
1964	278,058	179,139	98,919	120,000	158,000	253,920	24,138
1965	331,515	211,793	119,722	147,000	184,000	303,374	28,141
[3] 1966	381,000	232,000	150,000	174,000	208,000	350,000	32,000
[3] 1967	432,000	263,000	168,000	204,000	228,000	404,000	27,000
1968	502,797	308,058	194,739	236,796	266,001	477,333	25,464
[3] 1969	546,000	332,000	213,000	256,000	290,000	524,000	21,000
				PROJECTED[4]			
1970	589,000	355,000	232,000	275,000	313,000	567,000	22,000
1971	638,000	384,000	253,000	298,000	340,000	616,000	21,000
1972	692,000	415,000	277,000	323,000	369,000	670,000	22,000
1973	748,000	447,000	301,000	349,000	400,000	725,000	23,000
1974	803,000	478,000	325,000	374,000	429,000	780,000	23,000
1975	857,000	508,000	348,000	398,000	458,000	834,000	23,000
1976	909,000	538,000	371,000	422,000	487,000	886,000	23,000
1977	959,000	566,000	393,000	445,000	514,000	936,000	23,000
1978	1,008,000	593,000	415,000	467,000	540,000	985,000	23,000
1979	1,058,000	621,000	436,000	490,000	567,000	1,035,000	23,000

[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] Estimated for all years except 1968.

[3] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

The estimates for 1966 and 1967 differ from the estimates published in the 1968 edition of "Projections of Educational Statistics" because of data available from the 1967 comprehensive report of enrollment.

[4] The projection of total nondegree-credit enrollment in 2-year institutions by sex and institutional control, is based on the assumption that enrollment, expressed as a percentage of population aged 18-21 years, will follow the 1959-69 trend to 1979 in each enrollment category.

The projection of total nondegree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1968 opening fall enrollment survey, with minor adjustments, will remain constant to 1979.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1963 through 1969; (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961.

Population on which projections are based is shown in appendix B, table B-1.

Table 12.—Estimated full-time-equivalent enrollment in all institutions of higher education, by degree-credit status and institutional control: United States, fall 1959 to 1979[1]

[Resident and extension opening fall enrollment in thousands]

Year (fall)	All students			Students taking work creditable toward a bachelor's or higher degree			Students in occupational or general studies programs not chiefly creditable toward a bachelor's degree		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1959	2,777	1,648	1,129	2,665	1,562	1,103	112	86	26
1960	2,954	1,760	1,194	2,835	1,667	1,168	119	93	26
1961	3,200	1,949	1,251	3,092	1,868	1,224	108	81	27
1962	3,455	2,145	1,310	3,322	2,041	1,281	133	104	29
1963	3,696	2,351	1,345	3,539	2,225	1,314	157	126	31
1964	4,115	2,671	1,444	3,924	2,504	1,420	191	167	24
1965	4,671	3,094	1,577	4,443	2,895	1,548	228	199	29
1966	5,070	3,398	1,672	4,792	3,154	1,637	278	243	35
1967	5,480	3,761	1,719	5,168	3,482	1,686	312	279	33
1968	5,954	4,228	1,726	5,594	3,899	1,695	360	329	31
1969	6,272	4,536	1,736	5,891	4,181	1,710	381	355	26
				PROJECTED					
1970	6,539	4,782	1,757	6,129	4,398	1,731	410	384	26
1971	6,871	5,077	1,794	6,429	4,661	1,768	442	416	26
1972	7,250	5,408	1,842	6,771	4,956	1,815	479	452	27
1973	7,633	5,745	1,888	7,115	5,256	1,859	518	489	29
1974	7,992	6,066	1,926	7,438	5,542	1,896	554	524	30
1975	8,340	6,383	1,957	7,750	5,823	1,927	590	560	30
1976	8,661	6,678	1,983	8,035	6,083	1,952	626	595	31
1977	8,947	6,949	1,998	8,288	6,321	1,967	659	628	31
1978	9,232	7,220	2,012	8,541	6,560	1,981	691	660	31
1979	9,517	7,491	2,026	8,792	6,798	1,994	725	693	32

[1] The estimation, 1959 to 1969, and the projection of the full-time equivalent of part-time enrollment are based on the assumption that the 1964 percentages of part-time enrollment equivalent to full-time enrollment (33 percent for degree-credit students and 28 percent for nondegree-credit students) would remain constant 1959 to 1979.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 (unpublished); (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961; and (4) sample survey of full-time-equivalent enrollments and credit hours, fall 1964 (unpublished).

Table 13.—Summary of degree-credit enrollment in all institutions of higher education, by level and institutional type: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total degree-credit enrollment	Resident graduate (4-year)[1]	Level and type					
			Undergraduate and first-professional (4-year)			Undergraduate (2-year)		
			Total[1]	First-time	Other[1]	Total	First-time	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1959	3,377	331	2,636	640	1,996	410	182	228
1960	3,583	356	2,776	709	2,067	451	214	237
1961	3,861	386	2,956	775	2,181	518	244	274
1962	4,175	422	3,163	770	2,393	590	260	329
1963	4,495	464	3,406	775	2,631	625	272	353
1964	4,950	540	3,699	903	2,797	711	322	389
1965	5,526	619	4,066	1,041	3,025	841	401	441
[2] 1966	5,928	682	4,302	989	3,313	945	389	556
[2] 1967	6,406	753	4,572	992	3,580	1,081	447	634
1968	6,928	827	4,812	1,076	3,736	1,289	554	735
[2] 1969	7,299	889	5,014	1,125	3,889	1,397	574	823
				PROJECTED[3]				
1970	7,608	946	5,178	1,177	4,001	1,484	621	863
1971	7,995	1,015	5,393	1,226	4,167	1,586	667	919
1972	8,433	1,092	5,640	1,270	4,369	1,701	712	989
1973	8,876	1,173	5,885	1,309	4,576	1,819	755	1,064
1974	9,295	1,253	6,111	1,349	4,762	1,932	798	1,134
1975	9,702	1,334	6,324	1,383	4,941	2,044	840	1,204
1976	10,074	1,411	6,513	1,407	5,106	2,149	875	1,274
1977	10,408	1,485	6,675	1,433	5,242	2,248	912	1,336
1978	10,742	1,562	6,834	1,471	5,363	2,346	957	1,389
1979	11,075	1,640	6,989	1,489	5,500	2,446	989	1,457

[1] Estimated. See appendix A, "Estimation Methods."

[2] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

[3] The projection of resident graduate enrollment in 4-year institutions was made separately by sex and by institutional control and is based on the assumption that in each enrollment category the estimated proportion of total enrollment at the graduate level will continue the 1959-69 trend to 1979.

The projection of undergraduate and first-professional degree-credit enrollment in 4-year institutions is the difference between projected total degree-credit enrollment (resident and extension) in 4-year institutions shown in table 7 and resident graduate enrollment in 4-year institutions shown in table 17. Undergraduate and first-professional enrollment in 4-year institutions includes, therefore, an unknown amount of extension graduate enrollment.

The projection of undergraduate degree-credit enrollment in 2-year institutions of higher education is the same as that shown in table 8.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projection.

For further methodological details, see Appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) "Students Enrolled for Advanced Degrees, Preliminary Report, Fall 1969"; (3) "Residence and Migration of College Students, Fall 1968: Basic State to State Matrix Tables"; (4) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and fall 1967; and (5) "Resident and Extension Enrollment in Institutions of Higher Education," biennially, first term 1959 through 1963.

Table 14.—First-time degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment]

Year (fall)	First-time degree-credit enrollment[1]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959 . . .	821,520	487,890	333,630	672,000	150,000	501,543	319,977
1960 . . .	923,069	539,512	383,557	758,000	165,000	577,744	345,325
1961 . . .	1,018,361	591,913	426,448	840,000	178,000	648,236	370,125
1962 . . .	1,030,554	598,099	432,455	849,000	181,000	669,728	360,826
1963 . . .	1,046,417	604,282	442,135	864,000	182,000	686,861	359,556
1964 . . .	1,224,840	701,524	523,316	1,014,000	210,000	814,664	410,176
1965 . . .	1,441,822	829,215	612,607	1,192,000	250,000	990,021	451,801
[3] 1966 . . .	1,378,000	787,000	591,000	1,140,000	238,000	947,000	430,000
[3] 1967 . . .	1,439,000	814,000	626,000	1,182,000	257,000	1,024,000	415,000
1968 . . .	1,629,751	924,580	705,171	1,328,329	301,422	1,200,784	428,967
[3] 1969 . . .	1,699,000	955,000	744,000	1,381,000	318,000	1,261,000	438,000
	PROJECTED[4]						
1970 . . .	1,798,000	1,006,000	791,000	1,458,000	339,000	1,349,000	449,000
1971 . . .	1,894,000	1,056,000	838,000	1,533,000	361,000	1,436,000	458,000
1972 . . .	1,982,000	1,102,000	880,000	1,601,000	381,000	1,518,000	465,000
1973 . . .	2,064,000	1,145,000	919,000	1,663,000	401,000	1,594,000	469,000
1974 . . .	2,147,000	1,187,000	960,000	1,727,000	420,000	1,673,000	474,000
1975 . . .	2,223,000	1,226,000	997,000	1,785,000	439,000	1,747,000	476,000
1976 . . .	2,282,000	1,255,000	1,027,000	1,828,000	454,000	1,807,000	475,000
1977 . . .	2,345,000	1,287,000	1,058,000	1,875,000	470,000	1,871,000	474,000
1978 . . .	2,428,000	1,332,000	1,096,000	1,939,000	490,000	1,951,000	477,000
1979 . . .	2,477,000	1,358,000	1,119,000	1,975,000	503,000	2,004,000	473,000

[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] Estimated for all years except 1968. See appendix A, "Estimation Methods."

[3] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

[4] The projection of first-time opening fall degree-credit enrollment in all institutions of higher education by sex and by institutional control is based on the assumption that first-time enrollment, expressed as a percentage of the population averaging 18 years of age, will follow the 1959-69 trend to 1979 in each category of enrollment.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 (unpublished); and (3) "Resident and Extension Enrollment in Institutions of Higher Education," biennially, first term 1959 and 1961.

Population on which projections are based is shown in appendix B, table B-2.

Table 15.—First-time degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment]

Year (fall)	First-time degree-credit enrollment[1]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959 . . .	639,841	376,633	263,208	555,000	85,000	348,150	291,691
1960 . . .	709,093	410,942	298,151	620,000	90,000	395,884	313,209
1961 . . .	774,584	446,248	328,336	681,000	93,000	438,135	336,449
1962 . . .	770,114	441,936	328,178	680,000	90,000	445,191	324,923
1963 . . .	774,744	441,220	333,524	687,000	88,000	452,104	322,640
1964 . . .	902,599	508,117	394,482	802,000	100,000	539,251	363,348
1965 . . .	1,041,025	587,789	453,236	929,000	112,000	642,233	398,792
[3] 1966 . . .	989,000	555,000	434,000	884,000	105,000	610,000	379,000
[3] 1967 . . .	992,000	548,000	444,000	889,000	103,000	628,000	364,000
1968 . . .	1,076,077	591,443	484,634	966,094	109,983	705,891	370,186
[3] 1969 . . .	1,125,000	617,000	508,000	1,010,000	115,000	736,000	389,000
				PROJECTED[4]			
1970 . . .	1,177,000	641,000	536,000	1,057,000	120,000	781,000	396,000
1971 . . .	1,226,000	663,000	563,000	1,101,000	126,000	825,000	401,000
1972 . . .	1,270,000	683,000	587,000	1,140,000	130,000	866,000	404,000
1973 . . .	1,309,000	700,000	609,000	1,174,000	134,000	904,000	405,000
1974 . . .	1,349,000	717,000	632,000	1,210,000	139,000	943,000	406,000
1975 . . .	1,383,000	731,000	653,000	1,241,000	142,000	979,000	405,000
1976 . . .	1,407,000	739,000	668,000	1,262,000	145,000	1,007,000	400,000
1977 . . .	1,433,000	749,000	684,000	1,285,000	148,000	1,037,000	396,000
1978 . . .	1,471,000	766,000	705,000	1,319,000	152,000	1,076,000	395,000
1979 . . .	1,489,000	772,000	716,000	1,335,000	154,000	1,100,000	389,000

[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] Estimated for all years except 1968. See appendix A, "Estimation Methods."

[3] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

[4] The projection of first-time opening fall degree-credit enrollment in 4-year institutions of higher education by sex and by institutional control is based on the assumption that first-time enrollment, expressed as a percentage of the population averaging 18 years of age, will follow the 1959-69 trend to 1979 in each category of enrollment.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 (unpublished); and (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961.

Population on which projections are based is shown in appendix B, table B-2.

Table 16.—First-time degree-credit enrollment in 2-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979

[Resident and extension opening fall enrollment]

Year (fall)	First-time degree-credit enrollment[1]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959 . . .	181,679	111,257	70,422	117,000	65,000	153,393	28,286
1960 . . .	213,976	128,570	85,406	139,000	75,000	181,860	32,116
1961 . . .	243,777	145,665	98,112	159,000	85,000	210,101	33,676
1962 . . .	260,440	156,163	104,277	169,000	91,000	224,537	35,903
1963 . . .	271,673	163,062	108,611	178,000	94,000	234,757	36,916
1964 . . .	322,241	193,407	128,834	212,000	110,000	275,413	46,828
1965 . . .	400,797	241,426	159,371	263,000	138,000	347,788	53,009
[3] 1966 . . .	389,000	232,000	157,000	255,000	134,000	337,000	51,000
[3] 1967 . . .	447,000	266,000	181,000	292,000	155,000	396,000	51,000
1968 . . .	553,674	333,137	220,537	362,235	191,439	494,893	58,781
[3] 1969 . . .	574,000	339,000	235,000	372,000	202,000	525,000	49,000
				PROJECTED[4]			
1970 . . .	621,000	365,000	255,000	402,000	219,000	568,000	53,000
1971 . . .	667,000	393,000	275,000	432,000	235,000	610,000	57,000
1972 . . .	712,000	419,000	293,000	461,000	251,000	651,000	61,000
1973 . . .	755,000	445,000	310,000	489,000	266,000	690,000	64,000
1974 . . .	798,000	471,000	328,000	517,000	282,000	730,000	68,000
1975 . . .	840,000	495,000	345,000	544,000	296,000	768,000	72,000
1976 . . .	875,000	516,000	359,000	566,000	309,000	800,000	75,000
1977 . . .	912,000	538,000	374,000	590,000	322,000	834,000	78,000
1978 . . .	957,000	566,000	391,000	619,000	338,000	875,000	82,000
1979 . . .	989,000	585,000	403,000	640,000	349,000	904,000	84,000

[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] Estimated for all years except 1968. See appendix A, "Estimation Methods."

[3] The breakdown between degree-credit and nondegree-credit enrollment in 1966, 1967, and 1969 is estimated. See appendix A, "Estimation Methods."

[4] The projection of first-time opening fall degree-credit enrollment in 2-year institutions of higher education by sex and by institutional control is based on the assumption that first-time enrollment, expressed as a percentage of the population averaging 18 years of age, will follow the 1959-69 trend to 1979 in each category of enrollment.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 (unpublished); and (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 and 1961.

Population on which projections are based is shown in appendix B, table B-2.

Table 17.—Estimated graduate enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979[1]

[Resident opening fall enrollment—in thousands]

Year (fall)	Resident graduate degree-credit enrollment[1]	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959 . . .	331	237	94	131	200	172	159
1960 . . .	356	253	103	143	213	187	169
1961 . . .	386	273	113	162	224	208	179
1962 . . .	422	298	124	177	245	234	189
1963 . . .	464	327	137	188	276	267	196
[2]1964 . . .	540	373	167	221	319	317	223
[2]1965 . . .	619	423	196	256	363	370	249
[2]1966 . . .	682	458	224	285	397	411	271
[2]1967 . . .	753	498	255	317	436	464	290
[2]1968 . . .	827	531	296	332	495	529	298
1969 . . .	889	568	321	357	532	580	309
	PROJECTED[3]						
1970 . . .	946	599	347	379	567	626	320
1971 . . .	1,015	637	377	407	608	681	334
1972 . . .	1,092	681	412	438	655	743	350
1973 . . .	1,173	725	448	470	703	807	366
1974 . . .	1,253	769	484	501	752	873	381
1975 . . .	1,334	813	520	532	801	939	395
1976 . . .	1,411	854	557	564	847	1,004	407
1977 . . .	1,485	894	592	594	892	1,068	418
1978 . . .	1,562	934	628	624	938	1,133	428
1979 . . .	1,640	975	665	665	985	1,201	439

[1] For method of estimating total graduate enrollment and graduate enrollment by attendance status, see appendix A, "Estimation Methods."

[2] The estimates for 1964 through 1968 differ from the estimates published in the 1969 and prior editions of "Projections of Educational Statistics" because they take into account (1) data on graduate enrollment available from the unpublished 1967 comprehensive survey of enrollment and (2) revisions in the 1966 comprehensive survey of enrollment data for 4-year institutions.

[3] The projection of graduate enrollment by sex and by control of institution is based on the assumption that in each enrollment category the estimated proportion of total enrollment at the graduate level will continue the 1959-69 trend to 1979.

The projection of graduate enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time graduate enrollment to total graduate enrollment, estimated for 1969, with minor adjustments, will remain constant to 1979.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projection.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 through 1963; (4) "Students Enrolled for Advanced Degrees: Preliminary Report," fall 1969; (5) "Students Enrolled for Advanced Degrees: Summary Data," fall 1967 and 1968; and (6) prepublication data from "Residence and Migration of College Students," fall 1968.

Table 18.—Estimated undergraduate and first-professional degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979[1]

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Undergraduate degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959 . . .	3,046	1,924	1,122	2,183	863	1,812	1,234
1960 . . .	3,227	2,004	1,223	2,323	904	1,929	1,298
1961 . . .	3,474	2,135	1,339	2,552	922	2,121	1,353
1962 . . .	3,753	2,290	1,463	2,725	1,028	2,340	1,413
1963 . . .	4,031	2,446	1,585	2,881	1,151	2,581	1,450
[2] 1964 . . .	4,410	2,660	1,750	3,196	1,213	2,863	1,548
[2] 1965 . . .	4,907	2,952	1,956	3,654	1,253	3,255	1,653
[2] 1966 . . .	5,247	3,119	2,127	3,947	1,299	3,529	1,717
[2] 1967 . . .	5,653	3,324	2,329	4,239	1,414	3,897	1,756
[2] 1968 . . .	6,101	3,588	2,514	4,606	1,496	4,363	1,738
1969 . . .	6,411	3,749	2,661	4,842	1,569	4,680	1,731
PROJECTED							
1970 . . .	6,662	3,875	2,788	5,022	1,640	4,916	1,747
1971 . . .	6,980	4,037	2,942	5,252	1,728	5,201	1,779
1972 . . .	7,341	4,222	3,119	5,514	1,826	5,519	1,821
1973 . . .	7,703	4,409	3,294	5,777	1,926	5,843	1,860
1974 . . .	8,042	4,583	3,460	6,022	2,021	6,150	1,892
1975 . . .	8,368	4,749	3,619	6,256	2,112	6,449	1,919
1976 . . .	8,663	4,896	3,766	6,467	2,196	6,725	1,937
1977 . . .	8,923	5,021	3,902	6,652	2,271	6,975	1,948
1978 . . .	9,180	5,147	4,033	6,834	2,346	7,224	1,956
1979 . . .	9,435	5,276	4,159	7,014	2,421	7,471	1,964

[1] The estimation and projection of undergraduate degree-credit enrollment in all institutions, by sex, attendance status, and institutional control, is calculated by summing the above estimated and projected categories of degree-credit enrollment in 2-year institutions (table 8) and corresponding categories of undergraduate degree-credit enrollment in 4-year institutions (table 19).

[2] The estimates for 1964 through 1968 differ from the estimates published in the 1969 and prior editions of "Projections of Educational Statistics" because they take into account (1) data on graduate enrollment available from the unpublished 1967 comprehensive survey of enrollment and (2) revisions in the 1966 comprehensive survey of enrollment data for 4-year institutions.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; (3) "Resident and Extension Enrollment in Institutions of Higher Education," first term 1959 through 1963; (4) "Students Enrolled for Advanced Degrees: Preliminary Report," fall 1969; (5) Students Enrolled for Advanced Degrees: Summary Data," fall 1967 and 1968; and (6) prepublication data from "Residence and Migration of College Students," fall 1968.

Table 19.—Estimated undergraduate and first-professional degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1959 to 1979[1]

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Undergraduate degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959 . . .	2,636	1,664	972	1,957	679	1,456	1,181
1960 . . .	2,776	1,722	1,054	2,077	699	1,537	1,239
1961 . . .	2,956	1,815	1,141	2,258	699	1,665	1,291
1962 . . .	3,163	1,924	1,239	2,408	755	1,821	1,342
1963 . . .	3,406	2,059	1,347	2,553	853	2,030	1,377
[2] 1964 . . .	3,699	2,220	1,479	2,800	899	2,242	1,458
[2] 1965 . . .	4,066	2,430	1,636	3,159	907	2,517	1,549
[2] 1966 . . .	4,302	2,542	1,760	3,384	918	2,689	1,612
[2] 1967 . . .	4,572	2,672	1,900	3,623	949	2,929	1,643
[2] 1968 . . .	4,812	2,805	2,006	3,867	945	3,194	1,618
1969 . . .	5,014	2,909	2,105	4,039	975	3,386	1,628
				PROJECTED			
1970 . . .	5,178	2,984	2,195	4,169	1,009	3,541	1,638
1971 . . .	5,393	3,086	2,308	4,340	1,053	3,731	1,662
1972 . . .	5,640	3,204	2,436	4,537	1,103	3,945	1,695
1973 . . .	5,885	3,322	2,563	4,732	1,152	4,160	1,725
1974 . . .	6,111	3,429	2,682	4,912	1,199	4,362	1,748
1975 . . .	6,324	3,529	2,795	5,082	1,242	4,557	1,767
1976 . . .	6,513	3,614	2,899	5,233	1,281	4,736	1,777
1977 . . .	6,675	3,682	2,993	5,361	1,314	4,896	1,779
1978 . . .	6,834	3,750	3,084	5,487	1,347	5,053	1,780
1979 . . .	6,989	3,820	3,169	5,610	1,379	5,209	1,780

[1] The estimation and projection of undergraduate degree-credit enrollment in 4-year institutions, by sex, attendance status, and institutional control is calculated by subtracting estimated and projected graduate enrollment in the above categories (table 17) from corresponding categories of estimated and projected total degree-credit enrollment in 4-year institutions (table 7).

[2] The estimates for 1964 through 1968 differ from the estimates published in the 1969 and prior editions of "Projections of Educational Statistics" because they take into account (1) data on graduate enrollment available from the unpublished 1967 comprehensive survey of enrollment and (2) revisions in the 1966 comprehensive survey of enrollment data for 4-year institutions.

For further methodological details, see appendix A, table A-1.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; (3) "Resident and Extension Enrollment in Institutions of Higher Education," biennially, first term 1959 through 1963; (4) "Students Enrolled for Advanced Degrees Preliminary Report," fall 1969; (5) "Students Enrolled for Advanced Degrees: Summary Data," fall 1967 and 1968; and (6) prepublication data from "Residence and Migration of College Students," fall 1968.

CHAPTER III

High School Graduates and Earned Degrees

Frances E. Ryan and *Nadine C. Brown*

High school graduates (table 20)

The number of high school graduates increased from 1.9 million in the school year 1959-60 to an estimated 3.0 million in 1969-70 and is expected to increase to 3.8 million in 1979-80. These figures include graduates from all regular public and nonpublic high schools in the United States and, unlike the data on enrollments in Chapter II, graduates from the following schools not in the regular school system: Federal schools for Indians, schools on Federal installations, residential schools for exceptional children, and subcollegiate departments of colleges and universities. These schools represent about 1 percent of the public and nonpublic school graduates.

Two main sources form the basis for these figures quoted above. Graduates of regular public schools are reported each fall by the State departments of education. Graduates of regular nonpublic schools are reported in surveys of the schools by the Office of Education. Other graduates included above are estimated from various auxiliary sources.

Projected high school graduates by sex and by control of school are shown in table 20. The projection of public high school graduates to 1979-80 is based on the assumption that, for boys and girls separately, high school graduates expressed as a percentage of the 18-year-old population will follow the 1959-60 to 1968-69 trend. The projection of nonpublic high school graduates assumes little or no increase in the number of graduates in line with similar assumptions regarding nonpublic enrollments.

Girls make up slightly more than half of the graduates at present, but the number of boys graduating has been increasing faster than the number of girls. Early in the seventies, the number of boys graduating is expected to exceed the number of girls. The percentage of the 18-year-old population graduating will still be slightly higher for girls.

Earned degrees, by level and sex (table 21)

Earned-degree reports from individual degree-granting institutions of higher education are received each fall by the Office of Education. These provide information on the number of degrees granted by level and sex and by field of concentration. They cover degrees granted during the academic year ending in June and include degrees earned in the prior summer, awarded too late to be included with the June graduates of that year.

Three principal levels have been reported and projected: bachelor's, including first-professional degrees; master's degrees; and doctorates. Since 1960-61, first-professional degrees have been reported separately from bachelor's degrees, but the definitions of what constitutes a first-professional degree have not been uniform throughout the period. For that reason, no attempt has been made to project these degrees separately. (See "Changes in Degree-level Definitions," appendix A, for a comparison of these definitions.) Recently, however, a stable definition of what constitutes a first-professional degree has been established, and reporting will become reasonably uniform in the future.

In the previous report (1969 edition) ambiguities in the definitions of first-professional degrees in library science and social work were eliminated, and comparable series for removing these degrees from the first level and adding them to master's degrees were established. This made it possible to include them with master's degrees in the present report, even though prior to 1968-69 they were reported with first-professional degrees. The broken series shown in earlier projection tables has thus been eliminated. For methods of estimating master's degrees in library science and social work, see appendix A, "Estimation Methods."

Based on reports of degrees through 1968-69, the total number of bachelor's and first-professional degrees granted each year rose from 389,000 in 1959-60 to an estimated 784,000 in 1969-70 and is expected to be 1,133,000 in 1979-80; the number of master's degrees rose from 77,700 in 1959-60 to an estimated 219,200 in 1969-70, and is expected to reach 432,500 in 1979-80; and the annual output of doctorates increased from 9,800 in 1959-60 to an estimated 29,300 in 1969-70, and is expected to be 62,500 in 1979-80.

The projected degrees by level and sex are shown in table 21. Each level was projected separately for men and for women. The main assumption underlying these projections is that the relationships between college-age population and the number of degrees granted at each of the three levels during the period 1970-71 to 1979-80 will continue the 1959-60 through 1968-69 trend. The trend is for an increasing percentage of the college-age population to compete undergraduate requirements and go on for advanced degrees.

In the last 3 years this trend has accelerated greatly, and projections of degrees by level—especially master's and doctor's degrees—based on the earlier trend have fallen far short of predicting the actual number of degrees that were granted. The 1966-67 to 1968-69 reports also contain new definitions that reclassify master's degrees that formerly were classified as first-professional degrees and include them with master's degrees. This change further widened the difference between reported master's degrees and projected master's degrees. The current projection takes into account the accelerated trends and also uses a different population as base. This base is expected to be more sensitive to changes in the size of the population groups which contribute the most students as candidates for degrees. For details, see appendix A, "Estimation Methods."

Earned degrees, by level and field (tables 22-25)

The fields presented are divided into two main groups at each level. These groups are (a) natural sciences and related professions and (b) social sciences, humanities, and related professions. The fields included in both groups and the percentages distribution of degrees by level and field for the years 1959-60, 1969-70, and 1979-80 are shown in table 22.

The projected number of earned degrees by field are shown in tables 23, 24, and 25, each for one of the three levels. These projections (with the exception of first-professional degrees in the health fields) are based on the assumption that the percentage distribution of degrees by field for each level will continue the 1959-60 to 1968-69 trend. For example, if the proportion of total degrees granted in a particular field has been increasing, it is assumed that this trend will continue. The proportions thus projected, which are summarized in table 22, were applied to the projected total number of degrees for the corresponding level shown in table 21. Separate projections were made for men and for women.

First-level degrees in the health fields were projected by the Health Manpower Statistics Branch, Health Statistics Division, National Center for Health Statistics. They were based on estimates of expanding facilities for training, together with data on student applications in excess of present capacity. These subject fields were eliminated from the Office of Education data before its projections were made. The projected health fields were included in the final table.

First-level degrees, by field (tables 22, 23)

In 1959-60, almost one-third of all first-level degrees (bachelor's and first-professional degrees) were awarded in the fields of study constituting the natural sciences and related professions.

This proportion dropped to less than one-fourth in 1969-70 and is expected to remain less than one-fourth through 1979-80, with of course a proportionate increase for the social sciences, humanities, and related professions. The total number of first-level degrees granted in the natural sciences rose from 114,706 in 1959-60 to an estimated 176,880 in 1969-70 and is expected to be 239,130 in 1979-80. First-level degrees granted in the social sciences, humanities, and related professions rose from 274,477 in 1959-60 to an estimated 607,120 in 1969-70 and are expected to total 893,870 in 1979-80.

Projections of first-level degrees by the field in which they were awarded are shown in table 23. Total natural sciences are not expected to increase as fast as social sciences and humanities between 1969-70 and 1979-80.

In the natural sciences, the largest proportionate increase is expected in the field of mathematics which includes statistics and computer sciences. Moderate to substantial increases are projected in health professions, biological sciences, and engineering, but physical sciences are expected to decline by more than 10 percent.

Larger increases than any in the natural sciences are projected in the social sciences and humanities fields of foreign languages, English and journalism, psychology, and social sciences. Degrees in education are expected to drop as teachers continue to shown a preference for specialized subject-matter fields rather than for general degrees in education.

Second-level degrees, by field (tables 22, 24)

The proportion of second-level degrees (master's) awarded in the natural sciences and related professions is expected to decline to a little over one-fifth of all second-level degrees by 1979-80. The total number of these degrees awarded in the natural sciences and related professions rose from 18,232 in 1959-60 to an estimated 46,080 in 1969-70 and is expected to be 88,580 by 1979-80. Second-level degrees in the group of fields composed of the social sciences, humanities, and related professions rose from 59,460 in 1959-60 to an estimated 173,120 in 1969-70 and are expected to rise to 343,920 by 1979-80.

Second-level degrees by the fields in which they were awarded are shown in table 24. In the natural sciences, the pattern of proportionate increases is much like that in bachelor's and first-professional degrees but the expected increases are much higher. The combined fields of engineering and physical sciences, at this level, show a substantial increase for 1969-70 to 1979-80, but physical sciences excluding engineering show little change.

As with the natural sciences, the proportionate increases in the social sciences and humanities at the second level are much higher than for undergraduate and first-professional degrees. Students also show a preference for the same subject fields as at the lower level. However, increases in the fields of library science, social work, and business assume an importance at this level which they do not have at the first level.

Doctor's degrees, by field (tables 22, 25)

About one-half of all doctor's (except first-professional) degrees awarded in 1969-70 were in the subject fields which make up the natural sciences and related professions. This proportion is expected to change little by 1979-80. The remaining doctor's degrees will be awarded in the group classified as social sciences, humanities, and related professions. The total number of doctor's granted in the natural sciences and related professions rose from 4,697 in 1959-60 to an estimated 14,100 in 1969-70 and is expected to be 32,120 in 1979-80. Doctor's degrees granted in the social sciences, humanities, and related professions rose from 5,132 in 1959-60 to an estimated 15,200 in 1969-70 and are expected to be 30,380 by 1979-80.

Doctor's degrees by area of specialization are shown in table 25. At this level, in contrast to the first- and second-degree levels, proportionate increases expected in the natural science fields exceed those in the social sciences and humanities. Mathematical subjects and engineering are the leaders but biological sciences, health professions, and physical sciences are expected to show substantial increases. In the social sciences and humanities fields nearly all doctorates are expected to double by 1979-80, and those in foreign languages and business subjects (excluding accounting) are expected to increase even more.

Table 20.—High school graduates, by sex and by institutional control: United States, 1959-60 to 1979-80

[In thousands]

Year	Total high school graduates[1]	Sex		Control	
		Boys	Girls	Public	Private (estimated)
(1)	(2)	(3)	(4)	(5)	(6)
1959-60	1,864	898	966	1,633	[2]231
1960-61	1,971	958	1,013	1,732	239
1961-62	1,925	941	984	1,685	240
1962-63	1,950	959	991	1,717	[2]233
1963-64	2,290	1,123	1,167	2,015	[2]275
1964-65	2,665	1,314	1,351	2,366	[2]298
1965-66	2,672	1,326	1,346	2,374	298
1966-67	2,680	1,332	1,348	2,381	298
1967-68	2,702	1,341	1,360	2,402	300
1968-69	2,839	1,408	1,431	2,529	310
[3]1969-70	2,978	1,478	1,500	2,658	320
	PROJECTED[4]				
1970-71	3,102	1,541	1,560	2,782	320
1971-72	3,212	1,601	1,612	2,892	320
1972-73	3,312	1,654	1,658	2,992	320
1973-74	3,414	1,706	1,708	3,094	320
1974-75	3,507	1,756	1,751	3,187	320
1975-76	3,573	1,791	1,782	3,253	320
1976-77	3,644	1,830	1,814	3,324	320
1977-78	3,745	1,887	1,858	3,425	320
1978-79	3,797	1,919	1,878	3,477	320
1979-80	3,759	1,901	1,858	3,439	320

[1] Includes regular public and nonpublic schools, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and schools on Federal installations. Excludes equivalency certificates. More than 99 percent of public school graduates and 97 percent of nonpublic school graduates are graduates of regular day schools.

[2] Actual data from Office of Education surveys.

[3] Estimated.

[4] The projection of public high school graduates is based on the assumptions: (1) The number of boys graduating, expressed as a percentage of the number of boys in the population averaging 18 years of age, will follow the 1959-60 to 1968-69 trend; and (2) the number of girls graduating, expressed as a percentage of the number of girls in the population averaging 18 years of age, will follow the 1959-60 to 1968-69 trend.

The projection of nonpublic high school graduates is based on the assumptions: (1) the number of nonpublic high school graduates will remain approximately the same throughout the projection period; and (2) the percentage of boys among nonpublic high school graduates (48.1 percent in 1964-65) will remain constant to 1979-80.

For further methodological details, see appendix A, table A-2.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: High school graduate data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of Public Schools," annually, fall 1964 through 1969; (2) "Statistics of State School Systems, 1959-60"; (3) "Statistics of Nonpublic Elementary and Secondary Schools, 1965-66"; and (4) "Nonpublic School Enrollments in Grades 9-12, Fall 1964, and Graduates, 1963-64."

Table 21.—Earned degrees, by level and by sex of student: United States, 1959-60 to 1979-80

Year	Bachelor's and first-professional degrees[1]			Master's degrees[1]			Doctor's degrees (except first-professional)[2]		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1959-60	389,183	252,996	136,187	77,692	51,965	25,727	9,829	8,801	1,028
1960-61	395,203	252,976	142,227	81,735	55,368	26,367	10,575	9,463	1,112
1961-62	414,275	259,376	154,899	88,426	59,841	28,585	11,622	10,377	1,245
1962-63	443,502	271,721	171,781	95,486	64,359	31,127	12,822	11,448	1,374
1963-64	494,174	296,501	197,673	105,530	70,514	35,016	14,490	12,955	1,535
1964-65	530,054	316,088	213,966	117,101	77,742	39,359	16,467	14,692	1,775
1965-66	551,040	328,853	222,187	140,555	93,063	47,492	18,237	16,121	2,116
1966-67	590,548	353,351	237,197	157,706	103,090	54,616	20,617	18,163	2,454
1967-68	666,710	390,507	276,203	176,749	113,519	63,230	23,089	20,183	2,906
1968-69	764,185	444,380	319,805	193,756	121,531	72,225	26,188	22,752	3,436
[3] 1969-70	784,000	456,000	328,000	219,200	135,400	83,900	29,300	25,500	3,800
				PROJECTED[4]					
1970-71	816,000	473,000	344,000	255,500	156,100	99,400	31,300	27,300	4,000
1971-72	844,000	486,000	358,000	269,400	165,300	104,000	33,800	29,500	4,300
1972-73	881,000	503,000	379,000	287,700	176,900	110,700	37,900	33,000	4,900
1973-74	917,000	515,000	402,000	304,500	187,200	117,300	44,000	38,200	5,800
1974-75	959,000	532,000	427,000	325,200	199,300	125,900	46,600	40,600	6,000
1975-76	998,000	549,000	449,000	345,400	209,900	135,500	50,000	43,600	6,300
1976-77	1,038,000	567,000	471,000	368,700	222,700	146,000	53,000	46,300	6,600
1977-78	1,074,000	582,000	492,000	391,300	235,500	155,700	56,600	49,500	7,100
1978-79	1,112,000	598,000	514,000	414,200	248,900	165,400	59,800	52,300	7,500
1979-80	1,133,000	608,000	525,000	432,500	257,900	174,600	62,500	54,600	8,000

[1] Bachelor's and master's degrees differ from those published in the 1968 and prior editions of "Projections of Educational Statistics" because of adjustments to secure comparability with current reports of these degrees. For estimation details, see appendix A, "Estimation Methods."

The following specified degrees are reported as first-professional: Dentistry (D.D.S. or D.M.D.), law (LL.B. or J.D.), medicine (M.D.), theology (B.D.), veterinary medicine (D.V.M.), chiropody or podiatry (D.S.C. or D.P.), optometry (O.D.), and osteopathy (D.O.).

[2] Doctor's degrees include the Ph.D. in any field as well as such degrees as doctor of education, doctor of juridical science, and doctor of public health (preceded by professional degree in medicine or sanitary engineering). They exclude degrees defined as first-professional, such as doctor of jurisprudence, doctor of medicine, doctor of dental surgery, doctor of veterinary medicine, and doctor of divinity.

[3] Estimated.

[4] The projection of earned degrees is based on the assumption that the percentage of degrees to population for each level and sex will continue the 1959-60 to 1968-69 trends. (A composite population representative of age at graduation was used as base for projecting with a timelag of 2 years from the bachelor's degree to the master's degree and of 3 additional years from the master's degree to the doctor's degree. For population used and estimation details, see appendix B, table B-2).

For further methodological details, see appendix A, table A-2.

NOTE: Data include 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Degree data from U.S. Department of Health, Education, and Welfare, Office of Education publications on "Earned Degrees Conferred by Institutions of Higher Education," 1959-60 through 1968-69.

Table 22.—Percentage distribution of earned degrees, by field of study and level: United States, 1959-60 to 1979-80

A. NATURAL SCIENCES AND RELATED PROFESSIONS

Year (1)	Total number of degrees (2)	Total natural sciences (3)	Mathematics and statistics[1] (4)	Engineering (5)	Physical sciences[2] (6)	Biological sciences[3] (7)	Agriculture and forestry (8)	Health professions[4] (9)	Science, general program (10)
				BACHELOR'S AND FIRST-PROFESSIONAL					
1959-60	389,183	29.5	2.9	9.7	4.1	4.0	1.9	6.3	0.5
[5] 1969-70	784,000	22.6	3.8	5.2	2.7	4.7	1.4	4.3	.4
[6] 1979-80	1,133,000	21.1	4.7	4.4	1.6	5.6	0.8	3.7	.3
				MASTER'S					
1959-60	77,692	23.5	2.3	9.2	4.3	2.8	2.0	2.4	.5
[5] 1969-70	219,200	21.0	3.6	7.7	2.9	3.0	1.2	2.1	.5
[6] 1979-80	432,500	20.5	5.4	7.1	1.4	3.5	.7	1.8	.5
				DOCTOR'S (except first-professional)					
1959-60	9,829	47.8	3.1	8.0	18.7	12.3	4.6	1.1	.0
[5] 1969-70	29,300	48.1	4.6	13.6	14.4	11.6	2.7	1.1	.1
[6] 1979-80	62,500	51.4	6.4	20.2	11.0	11.7	1.2	0.8	.1

Continued on following page.

Table 22.—Percentage distribution of earned degrees, by field of study and level: United States, 1959-60 to 1979-80—Continued

B. SOCIAL SCIENCES, HUMANITIES, AND RELATED PROFESSIONS

Year	Total number of degrees	Total social sciences and humanities	Fine arts[7]	English and journalism	Foreign languages[8]	Psychology	Social sciences[9]	Education	Library science[10]	Social work[10]	Business and commerce		Other[12]
											Accounting	Other business and commerce[11]	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					BACHELOR'S AND FIRST-PROFESSIONAL								
1959-60	389,183	70.5	5.7	5.8	1.4	2.1	12.9	18.3	0.1	0.1	2.8	11.9	9.5
[5] 1969-70	784,000	77.4	6.7	8.0	3.0	4.0	19.1	15.4	.1	.4	2.7	10.4	7.7
[6] 1979-80	1,133,000	78.9	6.9	10.3	5.0	5.4	24.1	10.1	.1	.4	2.6	8.1	5.9
						MASTER'S							
1959-60	77,692	76.5	6.2	4.1	1.5	1.8	7.7	39.2	2.3	2.6	.6	6.4	4.2
[5] 1969-70	219,200	79.0	6.3	5.0	2.9	2.1	9.6	32.4	3.3	2.7	.7	10.5	3.5
[6] 1979-80	432,500	79.5	6.3	6.6	5.1	3.0	11.8	20.8	4.5	4.1	.7	14.3	2.4
						DOCTOR'S (except first-professional)							
1959-60	9,829	52.2	3.9	4.1	2.4	6.5	13.0	15.0	.2	.2	.2	1.4	5.3
[5] 1969-70	29,300	51.9	3.4	4.5	2.9	5.9	12.1	17.2	.1	.3	.2	2.1	3.2
[6] 1979-80	62,500	48.6	2.1	4.6	3.5	5.6	11.2	16.6	.1	.4	.2	2.7	1.7

See footnotes at end of table 25.

Table 23.—Earned bachelor's and first-professional degrees, by field of study: United States, 1959-60 to 1979-80

A. NATURAL SCIENCES AND RELATED PROFESSIONS

Year (1)	Total natural sciences (2)	Mathematics and statistics[1] (3)	Engineering (4)	Physical sciences[2] (5)	Biological sciences[3] (6)	Agriculture and forestry (7)	Health professions[4] (8)	Science, general program (9)
1959-60	114,706	11,399	37,679	16,007	15,576	7,484	24,455	2,106
1960-61	113,695	13,097	35,698	15,452	16,060	6,733	24,634	2,021
1961-62	115,580	14,570	34,551	15,851	16,915	6,789	24,672	2,232
1962-63	119,867	16,078	33,285	16,215	19,114	6,940	25,776	2,459
1963-64	128,701	18,624	35,013	17,456	22,723	7,115	25,259	2,511
1964-65	136,841	19,547	36,589	17,861	25,167	7,663	27,356	2,658
1965-66	138,531	20,066	35,615	17,129	26,918	8,063	28,171	2,569
1966-67	144,443	21,429	35,954	17,739	28,849	8,829	29,160	2,488
1967-68	155,900	23,972	37,368	19,380	31,826	9,342	31,175	2,837
1968-69	173,990	28,142	41,248	21,480	35,308	11,208	33,498	3,106
[5] 1969-70	176,880	29,740	41,090	21,090	37,180	11,070	33,600	3,110
				PROJECTED[6]				
1970-71	183,070	31,730	42,190	20,830	39,520	11,000	34,650	3,150
1971-72	188,300	33,670	43,030	20,460	41,720	10,880	35,370	3,170
1972-73	194,900	35,970	44,090	20,180	44,310	10,750	36,390	3,210
1973-74	201,100	38,290	44,830	19,950	46,820	10,600	37,360	3,250
1974-75	208,820	40,840	45,930	19,810	49,650	10,470	38,840	3,280
1975-76	215,790	43,350	47,010	19,600	52,450	10,330	39,730	3,320
1976-77	222,970	45,960	48,160	19,380	55,350	10,180	40,600	3,340
1977-78	229,180	48,450	49,040	19,030	58,070	9,960	41,270	3,360
1978-79	235,740	51,080	49,990	18,680	60,930	9,740	41,960	3,360
1979-80	239,130	52,980	50,410	18,070	62,990	9,390	41,970	3,320

Continued on following page.

Table 23.—Earned bachelor's and first-professional degrees, by field of study: United States, 1959-60 to 1979-80—Continued

B. SOCIAL SCIENCES, HUMANITIES, AND RELATED PROFESSIONS

Year	Total social sciences and humanities	Fine arts[7]	English and journalism	Foreign languages[8]	Psychology	Social sciences[9]	Education	Library science[10]	Social work[10]	Business and commerce		Other[12]
										Accounting	Other business and commerce[11]	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1959-60	274,477	22,281	22,400	5,482	8,061	50,193	71,145	429	487	10,711	46,228	37,060
1960-61	281,503	21,895	23,976	6,473	8,460	52,192	74,023	439	567	10,580	45,316	37,582
1961-62	293,695	23,370	26,508	7,975	9,578	57,304	78,153	423	654	11,353	46,011	37,366
1962-63	323,635	25,319	30,251	9,768	10,993	65,373	82,627	462	825	11,880	47,124	39,013
1963-64	365,473	28,184	35,174	12,217	13,258	77,039	90,813	510	983	13,675	50,913	42,707
1964-65	393,213	30,385	38,880	13,926	14,676	84,231	95,667	623	1.291	14,886	53,839	44,809
1965-66	412,509	32,605	42,146	15,313	16,940	93,175	94,294	642	1,664	14,903	54,084	46,743
1966-67	446,105	36,365	45,776	16,855	19,410	104,283	95,859	701	1,881	15,593	59,967	49,415
1967-68	510,810	42,566	52,340	19,264	23,938	120,774	107,778	814	2,518	17,922	68,644	54,252
1968-69	590,195	50,608	59,476	21,709	29,332	140,932	121,669	1,000	3,367	20,032	81,557	60,513
[5] 1969-70	607,120	52,250	62,840	23,790	31,360	149,500	120,460	1,000	3,190	20,780	81,870	60,080
						PROJECTED[6]						
1970-71	632,930	54,620	67,330	26,340	33,870	160,300	121,160	1,040	3,040	21,600	83,400	60,230
1971-72	655,700	56,780	71,640	28,980	36,310	170,440	120,930	1,090	2,990	22,750	84,540	59,250
1972-73	686,100	59,580	77,080	32,090	39,190	182,770	122,160	1,150	3,140	23,580	85,990	59,370
1973-74	715,900	62,410	82,770	35,520	42,130	194,860	123,240	1,220	3,300	24,280	86,740	59,430
1974-75	750,180	65,430	88,820	39,130	45,320	208,380	123,950	1,280	3,470	25,190	88,060	61,150
1975-76	782,210	68,220	94,640	42,710	48,470	221,690	123,470	1,350	3,620	26,640	89,140	62,260
1976-77	815,030	71,060	100,650	46,440	51,760	235,570	122,540	1,420	3,770	27,570	90,550	63,700
1977-78	844,820	73,660	106,470	50,160	54,910	248,810	120,790	1,480	3,910	28,360	91,050	65,220
1978-79	876,260	76,400	112,620	54,130	58,250	262,820	118,790	1,540	4,050	29,230	91,490	66,940
1979-80	893,870	77,860	116,840	57,150	60,740	273,190	114,170	1,580	4,100	29,780	91,920	66,540

See footnotes at end of table 25.

Table 24.—Earned master's degrees, by field of study: United States, 1959-60 to 1979-80

A. NATURAL SCIENCES AND RELATED PROFESSIONS

Year (1)	Total natural sciences (2)	Mathematics and statistics[1] (3)	Engineering (4)	Physical sciences[2] (5)	Biological sciences[3] (6)	Agriculture and forestry (7)	Health professions[4] (8)	Science, general program (9)
1959-60	18,232	1,757	7,159	3,376	2,154	1,554	1,838	394
1960-61	20,277	2,231	8,178	3,790	2,358	1,602	1,632	486
1961-62	22,224	2,680	8,909	3,925	2,642	1,763	1,632	673
1962-63	24,084	3,313	9,633	4,125	2,921	1,546	2,011	535
1963-64	26,920	3,597	10,827	4,561	3,296	1,651	2,279	709
1964-65	30,089	4,290	12,052	4,914	3,598	1,734	2,493	1,008
1965-66	33,586	5,007	13,675	4,987	4,232	2,091	2,833	761
1966-67	36,308	5,727	13,880	5,405	4,996	2,201	3,398	701
1967-68	39,201	6,075	15,182	5,499	5,506	2,271	3,677	991
1968-69	41,219	6,725	15,240	5,895	5,743	2,578	4,067	971
[5] 1969-70	46,080	7,950	16,900	6,300	6,580	2,680	4,570	1,100
				PROJECTED[6]				
1970-71	53,220	9,680	19,430	6,930	7,760	2,860	5,270	1,290
1971-72	56,110	10,700	20,500	6,960	8,320	2,780	5,480	1,370
1972-73	59,830	11,960	21,840	7,040	9,030	2,720	5,770	1,470
1973-74	63,150	13,210	23,010	7,030	9,710	2,600	6,020	1,570
1974-75	67,180	14,690	24,400	7,040	10,530	2,480	6,350	1,690
1975-76	70,950	16,190	25,590	6,960	11,340	2,400	6,670	1,800
1976-77	75,600	17,910	26,990	6,890	12,280	2,560	7,040	1,930
1977-78	80,210	19,690	28,400	6,740	13,220	2,730	7,370	2,060
1978-79	84,980	21,600	29,840	6,550	14,210	2,900	7,690	2,190
1979-80	88,580	23,290	30,750	6,210	15,060	3,030	7,940	2,300

Continued on following page.

Table 24.—Earned master's degrees, by field of study: United States, 1959-60 to 1979-80—Continued

B. SOCIAL SCIENCES, HUMANITIES, AND RELATED PROFESSIONS

Year	Total social sciences and humanities	Fine arts[7]	English and journalism	Foreign language[8]	Psychology	Social sciences[9]	Education	Library science[10]	Social work[10]	Business and commerce		Other[12]
										Accounting	Other business and commerce[11]	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1959-60	59,460	4,809	3,192	1,156	1,406	5,965	30,424	1,814	1,987	470	4,960	3,277
1960-61	61,458	4,804	3,391	1,405	1,719	6,378	30,830	1,931	2,151	447	4,999	3,403
1961-62	66,202	5,182	3,765	1,626	1,832	7,241	32,654	2,140	2,272	511	5,557	3,422
1962-63	71,402	5,620	4,307	2,026	1,918	8,326	34,105	2,363	2,549	499	6,184	3,505
1963-64	78,610	6,020	4,807	2,391	2,059	9,395	37,171	2,717	2,851	530	6,694	3,975
1964-65	87,012	6,821	5,461	2,947	2,708	10,635	39,296	3,211	3,097	617	7,926	4,293
1965-66	106,969	8,359	6,788	3,727	3,117	12,900	45,094	3,916	3,872	862	13,327	5,007
1966-67	121,399	9,741	7,980	4,378	3,772	14,954	49,744	4,489	4,182	1,024	15,212	5,923
1967-68	137,548	10,815	8,646	5,007	4,325	16,197	56,963	5,165	4,725	1,137	18,150	6,418
1968-69	152,537	12,300	9,309	5,231	4,011	18,207	64,583	5,932	5,037	1,333	19,641	6,953
[5]1969-70	173,120	13,850	10,890	6,390	4,700	20,970	71,130	7,190	5,960	1,490	22,950	7,600
						PROJECTED[6]						
1970-71	202,280	16,040	13,110	7,980	5,670	24,960	80,500	8,730	7,320	1,730	27,670	8,570
1971-72	213,290	16,900	14,170	8,920	6,190	26,990	81,570	9,440	8,060	1,830	30,470	8,750
1972-73	227,870	18,020	15,520	10,090	6,850	29,510	83,690	10,360	8,990	1,980	33,890	8,970
1973-74	241,350	19,060	16,870	11,310	7,500	31,940	85,000	11,290	9,930	2,100	37,250	9,100
1974-75	258,020	20,330	18,520	12,790	8,280	34,850	87,050	12,440	11,060	2,230	41,150	9,320
1975-76	274,450	21,620	20,280	14,390	9,090	37,750	88,650	13,680	12,250	2,370	44,910	9,460
1976-77	293,100	23,080	22,280	16,230	10,020	41,080	90,360	15,070	13,580	2,520	49,300	9,580
1977-78	311,090	24,500	24,320	18,130	10,970	44,460	91,150	16,460	14,940	2,690	53,770	9,700
1978-79	329,220	25,910	26,400	20,170	11,980	48,050	91,310	17,910	16,390	2,850	58,610	9,640
1979-80	343,920	27,120	28,420	22,180	12,910	51,100	90,160	19,280	17,700	2,980	61,750	10,320

See footnotes at end of table 25.

Table 25.—Earned doctor's degrees (except first-professional), by field of study: United States, 1959-60 to 1979-80

A. NATURAL SCIENCES AND RELATED PROFESSIONS

Year (1)	Total natural sciences (2)	Mathematics and statistics[1] (3)	Engineering (4)	Physical sciences[2] (5)	Biological sciences[3] (6)	Agriculture and forestry (7)	Health professions[4] (8)	Science, general program (9)
1959-60	4,697	303	786	1,838	1,205	456	107	2
1960-61	5,070	344	943	1,991	1,193	463	133	3
1961-62	5,684	396	1,207	2,122	1,338	472	148	1
1962-63	6,326	490	1,378	2,380	1,455	462	157	4
1963-64	7,137	596	1,693	2,455	1,625	573	192	3
1964-65	8,316	688	2,124	2,829	1,928	557	173	17
1965-66	9,127	801	2,304	3,045	2,097	618	251	11
1966-67	10,128	870	2,614	3,462	2,255	670	250	7
1967-68	11,225	983	2,932	3,593	2,784	679	243	11
1968-69	12,513	1,161	3,377	3,859	3,051	753	283	29
[5] 1969-70	14,100	1,350	3,980	4,220	3,410	800	310	30
				PROJECTED[6]				
1970-71	15,180	1,490	4,480	4,420	3,630	800	320	40
1971-72	16,520	1,680	5,050	4,650	3,940	820	340	40
1972-73	18,600	1,940	5,900	5,070	4,420	860	370	40
1973-74	21,720	2,330	7,130	5,730	5,140	920	420	50
1974-75	23,200	2,550	7,880	5,920	5,440	910	440	60
1975-76	25,080	2,820	8,830	6,200	5,810	900	460	60
1976-77	26,800	3,080	9,730	6,410	6,170	870	470	70
1977-78	28,750	3,400	10,740	6,620	6,590	840	490	70
1978-79	30,580	3,690	11,750	6,790	6,970	800	500	80
1979-80	32,120	3,970	12,650	6,870	7,310	730	510	80

Continued on following page.

Table 25.—Earned doctor's degrees (except first-professional), by field of study: United States, 1959-60 to 1979-80—Continued

B. SOCIAL SCIENCES, HUMANITIES, AND RELATED PROFESSIONS

Year	Total social sciences and humanities	Fine arts[7]	English and journalism	Foreign languages[8]	Psychology	Social sciences[9]	Education	Library science[10]	Social work[10]	Business and commerce		Other[12]
										Accounting	Other business and commerce[11]	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1959-60	5,132	380	405	232	641	1,282	1,474	19	23	15	139	522
1960-61	5,505	410	408	264	703	1,369	1,594	14	36	15	180	512
1961-62	5,938	425	493	261	781	1,391	1,737	10	32	27	229	552
1962-63	6,496	467	527	277	844	1,557	1,943	17	40	23	250	551
1963-64	7,353	519	570	379	939	1,803	2,191	13	43	21	286	589
1964-65	8,151	545	706	436	1,004	2,027	2,372	12	34	32	319	664
1965-66	9,110	588	714	518	1,206	2,155	2,711	19	64	34	397	704
1966-67	10,487	642	871	578	1,393	2,526	3,143	16	64	43	451	760
1967-68	11,866	698	1,009	713	1,447	2,850	3,660	22	77	33	456	901
1968-69	13,675	914	1,173	751	1,551	3,196	4,504	17	90	40	538	896
[5] 1969-70	15,200	990	1,310	860	1,720	3,550	5,030	20	100	50	620	950
	PROJECTED[6]											
1970-71	16,120	1,010	1,400	930	1,820	3,780	5,360	20	110	50	690	950
1971-72	17,280	1,050	1,520	1,030	1,960	4,030	5,740	20	120	50	750	1,010
1972-73	19,300	1,130	1,710	1,180	2,190	4,490	6,460	20	130	60	860	1,070
1973-74	22,280	1,250	2,000	1,400	2,540	5,170	7,470	30	150	70	1,040	1,160
1974-75	23,400	1,260	2,120	1,500	2,660	5,430	7,870	30	160	70	1,150	1,150
1975-76	24,920	1,290	2,260	1,630	2,830	5,790	8,430	30	170	80	1,270	1,140
1976-77	26,220	1,300	2,400	1,760	2,980	6,070	8,890	30	190	80	1,410	1,110
1977-78	27,850	1,340	2,580	1,920	3,170	6,440	9,450	40	200	90	1,500	1,120
1978-79	29,220	1,340	2,730	2,070	3,330	6,750	9,940	40	210	90	1,630	1,090
1979-80	30,380	1,330	2,880	2,210	3,470	6,990	10,350	40	220	100	1,710	1,080

[1] Includes mathematics, statistics, and computer science.

[2] Includes astronomy, chemistry, earth sciences, meteorology, physics, and other physical sciences.

[3] Includes anatomy, bacteriology, biochemistry, biology, botany, entomology, physiology, zoology, and other biological sciences.

[4] Includes dentistry, medicine and osteopathy, nursing, optometry, pharmacy, public health, veterinary medicine, and other health professions.

[5] Estimated.

[6] The projection of degrees by subject field is based on the assumption that the percentage distribution of degrees by field for each level and sex will continue the 1959-60 to 1969-70 trend.

For methodological details, see appendix A, table A-2; for complete classification of degrees by field, see appendix A, "Classification of Degrees by Field of Study."

[7] Includes architecture, music, speech and dramatic arts, and other fine and applied arts.

[8] Includes classical languages, French, German, Russian and other Slavic languages, Spanish, and other languages and language programs.

[9] Includes anthropology, economics, geography, history, international relations, political science, public administration, sociology, and other social sciences.

[10] Beginning in 1965-66, bachelor's and first-professional degrees in library science and social work exclude master's degrees whether considered as first-professional or not; they are included in master's degrees.

Prior to 1965-66, bachelor's and first-professional degrees and master's degrees in library science and social work have been estimated to conform to this classification.

For method of estimating, see appendix A, "Estimation Methods."

Doctorates have not been affected by this reclassification.

[11] Includes hotel and restaurant administration, secretarial studies, other business and commerce programs, distributive education, finance and banking, marketing, transportation, real estate and insurance, and business education.

[12] Includes home economics; law, military, naval, or air force science; theology; philosophy and religion; and miscellaneous and unclassified fields.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding. detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office Education publications: "Earned Degrees Conferred by Institutions of Higher Education," annually, 1959-60 through 1968-69.

CHAPTER IV

Teachers

Alice R. Pool and *John F. Beamer, Jr.*

Elementary and Secondary Schools

There were 2.5 million professional persons employed in the public and private elementary and secondary day schools in fall 1969. These included principals, supervisors, librarians, guidance and psychological personnel, and classroom teachers. Of the total number, 90 percent were classroom teachers. The numbers of professional persons employed in the regular public school system were reported to the U.S. Office of Education by the State departments of education in each of the 50 States and the District of Columbia. The numbers in the regular nonpublic day schools were reported by the individual schools in Office of Education surveys.

Classroom teachers (table 26)

Classroom teachers are reported separately in the secondary and elementary schools. The former comprise the junior high and senior high schools; the latter, the elementary or grade schools. The number of classroom teachers in secondary schools (public and nonpublic) increased from 580,000 in 1959 to 985,000 in 1969 and is expected to be 1,104,000 in 1979. Those in public and nonpublic elementary schools increased from 952,000 in 1959 to 1,255,000 in 1969 but are expected to drop to 1,217,000 by 1979. The number of teachers in elementary schools is decreasing partly because of the shift of public seventh and eighth grade pupils from elementary to secondary junior high schools, and partly because of the decrease in the population aged 5-13 years. (See appendix B, table B-1). The number of teachers in the secondary schools, on the other hand, continues to rise because of the continuing shift of pupils from the seventh and eighth grades into junior high (secondary) schools and because the smaller number of children born in the 1960's will not begin to reach high school age until 1974.

Pupil-teacher ratios (table 27)

The projection of teachers in both public and nonpublic schools depends upon the projection of enrollments (table 4) and upon the projection of pupil-teacher ratios (table 27). For the public schools, the 1965 to 1967 portion and the projected portion of section A in table 27 show the actual ratios already attained since the 1965 ESEA took effect and those expected with the continuation of this legislation. The lower section B of the table shows the ratios obtained on the basis of trend alone. The difference in these ratios, resulting in about 167,000 additional teachers employed in 1969 and 180,000 additional expected to be employed by 1979 (table 26), may be attributed mainly to this legislation.

The nonpublic schools are not affected by the ESEA. For these schools, the 1968 Office of Education survey shows the drop in pupil-teacher ratios which began about 1960 to be continuing. Nonpublic elementary school pupil-teacher ratios are still considerably higher than those in the public schools, however.

Demand for additional classroom teachers (tables 28, 29)

The total demand for public elementary and secondary school teachers (not employed in the public schools the previous year) includes those needed to allow for increased enrollment, additional staff required for lowering pupil-teacher ratios, and those needed for replacement of teachers leaving the profession (turnover). During the period fall 1965 to fall 1969, the cumulative demand for additional public school teachers (including returnees to the profession) was 1,080,793. During the period 1970 through 1974, on the basis of trend alone, it would total 806,000 and from 1975 through 1979, 770,000. Allowance for the expected impact of ESEA, however, will increase these totals to 888,000 and 842,000, respectively. This means that 1.7 million new teachers or returnees to the profession are expected to be employed by the public schools during the next 10 years, 1970 through 1979.

The projected demand for additional public school teachers is shown in table 28. The number of teachers necessary to take care of enrollment increases and pupil-teacher ratio changes was computed for each year as the difference between the total employed for the current year and the total employed for the previous year. The number for turnover was based on the assumption that 8 percent of the total classroom teachers will leave the profession temporarily or permanently each year.[1] Projection A includes the increases in classroom teachers under the operation of ESEA.

The future demand for additional nonpublic school teachers is expected to change only slightly from the recent past. About 40,000 new nonpublic school teachers or returnees to the profession were employed during fall 1965 through fall 1969. This number is expected to be 44,000 in 1970 through 1974 and 50,000 in the 1975 through 1979 period. Approximately 94,000 additional nonpublic school teachers will be employed during the next 10 years, 1970 through 1979. Turnover will account for nearly all of this demand.

The projected demand for additional nonpublic elementary and secondary school teachers is shown in table 29. The number for taking care of enrollment increases and pupil-teacher ratio changes were computed in the same manner as for public schools, and the number for turnover is based on the assumption that 4 percent (one-half the public school rate) of the nonpublic school teachers will leave the profession permanently or temporarily each year. This lower rate (4 percent) was assumed because large numbers of nonpublic school teachers belong to religious orders, where the turnover is presumably small.

Instructional staff (table 30)

Instructional staff in public elementary and secondary schools includes principals, supervisors, librarians, and guidance and psychological personnel, as well as classroom teachers. Instructional staff and classroom teachers are not reported separately for nonpublic schools. Since it is believed that the primary responsibility of most professional personnel employed by the nonpublic schools is classroom teaching, the number of the instructional staff shown here is the same as the number of the teachers.

Projected instructional staff is shown in table 30. Instructional staff in public elementary and secondary schools increased from 1.6 million in 1959 to 2.5 million in 1969 and, on the basis of a continuation of ESEA (section A of the table), is expected to be 2.7 million in 1979. This is over 200,000 more staff members employed in each year, 1970 to 1979, than the numbers projected in section B of the table.

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[1] U.S. Department of Health, Education, and Welfare, Office of Education, "Teacher Turnover in Public Elementary and Secondary Schools, 1959-60," by Frank Lindenfeld. U.S. Government Printing Office, Washington, D.C., 1963.

The public school instructional staff projection in section B was based on the assumption that instructional staff as a percentage of classroom teachers would continue the 1959 to 1964 trend if it were not for the effect of ESEA. The ratio of total public school instructional staff to classroom teachers increased from 1.080 in 1959 to 1.127 in 1969 and, based on trend alone, would be expected to be 1.159 by 1979. These ratios were applied to the public classroom teacher figures shown in table 26 to obtain the projections in section B. Nonpublic school instructional staff, as previously stated, was assumed to be 100 percent of the classroom teachers shown in table 26.

Institutions of Higher Education

The faculty data for institutions of higher education shown in tables 31 to 39 are from biennial reports on numbers of positions, submitted by individual institutions for 1959-60 through 1963-64, with estimates for 1966-67 and 1967-68 prorated to the total number of faculty reported in the 1966-67 and 1967-68 Higher Education General Information Survey.

Prior to 1966-67, the reports of professional staff gave the number of staff positions according to the function of each position and, in the case of instruction in resident degree-credit courses, according to the rank and full-time status of the person holding the position. These functions included full-time and part-time instruction in resident degree-credit courses, instruction in resident nondegree-credit courses, and instruction in extension, mail, radio, and television courses. They also included professional positions in administration and services and in organized research. Because some of these functions overlapped, with one person carrying out more than one function, the number of positions by function was greater than the number of persons employed. The total number of persons without regard to the function performed was also reported. In 1963-64, the last report prior to 1966-67, the ratio of total positions to total persons was 1.1.

Beginning in 1966-67, the reporting was in terms of the principal position held by each person. Thus the number of positions equaled the number of persons employed. However, the breakdown of positions was quite different from the earlier reports.

Because continuity is a requisite for projecting data, the total number of persons reported in 1966-67 and 1967-68 was converted to positions by using the 1963-64 ratio of positions to persons. The estimates for 1966-67 and 1967-68 based on the earlier reporting were prorated to this total. The new 1966-67 and 1967-68 totals by position for the 1963-64 categories were then used for projecting the faculty data.

In presenting these estimates, the assumption was made that, in general, full-time positions may be equated to full-time personnel and that the excess positions over number of persons employed is mainly in the number of part-time positions. Therefore, full-time positions and full-time-equivalent positions are referred to as full-time staff and full-time-equivalent staff, respectively.

Instructional staff positions for resident degree-credit courses (table 31)

The total of full-time and part-time instructional staff positions for resident degree-credit courses in all institutions of higher education (table 31) increased from 281,506 in 1959-60 to an estimated 578,000 in 1969-70 and is expected to be 801,000 in 1979-80. These figures include positions of all full-time and part-time instructors and above, plus junior instructional staff positions for instruction in resident degree-credit courses. (Junior instructional staff includes assistant instructors, teaching fellows, teaching assistants, and laboratory assistants.)

The total of full-time and part-time instructional staff positions for resident degree-credit courses was projected separately for publicly controlled 4-year and 2-year institutions and privately controlled 4-year and 2-year institutions and the four results summed to obtain the total for all institutions. The projections are based on the assumption that student-staff ratios (number of students divided by number of staff positions) in each institutional control and type category will continue to increase as they have in the past. To obtain the projections, projected enrollments in each of the institutional control and type categories (tables 7 and 8) were divided by the projected student-staff ratios in corresponding categories. The resulting projections by institutional control and type categories are shown in tables 33 to 37 along with projections of all professional staff positions.

Full-time-equivalent instructional staff for resident degree-credit courses (table 32)

Full-time-equivalent instructional staff for resident degree-credit courses in all institutions increased from 200,850 in 1959-60 to an estimated 411,000 in 1969-70 and is expected to rise to 570,000 in 1979-80. These figures include full-time staff, full-time equivalent of part-time staff positions, and estimated full-time equivalent of junior instructional staff positions. In 1963-64, in all institutions, more than 85 percent of the full-time-equivalent instructional staff members with the rank of instructor or above were employed full time.

Total professional staff positions (tables 33 to 37)

Total full-time and part-time professional staff positions in institutions of higher education classified by function include, in addition to staff positions for instruction in resident degree-credit courses, full-time and part-time instructional staff positions for extension courses, resident nondegree-credit courses, and instruction by mail, radio, and television. It also includes full-time and part-time professional staff positions for administration and services and for organized research. Full-time and part-time professional staff positions in institutions of higher education rose from 418,788 in 1959-60 to an estimated 872,000 in 1969-70, and is expected to be 1,221,000 in 1979-80.

Projected full-time and part-time professional staff positions for all institutions is shown in table 33. The projection of these staff positions is based on the assumption that each of the separate functions, as a percentage of total full-time and part-time instructional staff positions for resident degree-credit courses, will maintain to 1979-80 the same relationship that existed in 1963-64.

The percentages used for other instructional staff, administration and services, and organized research positions differed in each of the four types of institutions and are given in the footnotes to tables 34 to 37. These tables give projections of these "other" instructional and professional staff positions for the four types of institutions: publicly controlled 4-year and 2-year and privately controlled 4-year and 2-year institutions.

Full-time-equivalent professional staff (table 38)

The estimated and projected full-time equivalent of total full-time and part-time professional staff positions in all institutions is shown in table 38. The method of estimating and projecting full-time-equivalent instructional staff for resident degree-credit courses is given in the footnotes to table 32. The 1963-64 ratio of full-time-equivalent instructional staff for resident degree-credit courses to total full-time and part-time instructional staff positions for these courses was 0.71. The totals shown in table 33 for full-time and part-time staff positions for instruction in courses other than resident degree-credit courses, for administration and services, and for organized research, were multiplied by the above ratio to obtain the full-time-equivalent staff given in table 38.

Demand for full-time-equivalent professional staff (table 39)

During the past 5 years, 1965-66 through 1969-70, the total demand for additional full-time-equivalent professional staff was 2,735,000. The totals are expected to be 3,467,000 in 1970-71 through 1974-75, and 4,114,000 in 1975-76 through 1979-80. These figures include the number of full-time-equivalent professional staff needed for instruction, administration and services, and organized research. Over 80 percent of the required staff is for instruction.

The demand for this staff is projected as the total of staff required for increased enrollment and staff needed for replacement of those who have left the profession either temporarily or permanently. Full-time-equivalent staff required for increased enrollment is computed as the difference between the total number employed in successive years. Replacement requirements are estimated at 6 percent of the total number of full-time-equivalent staff employed in the previous year.

The assumption of a 6-percent replacement rate is based on unpublished data from a 1963 Office of Education study which showed that about 5 percent of the full-time instructors and above in 4-year institutions intended to leave employment in institutions of higher education during the following year. If we estimate an additional 1 percent for mortality, the annual replacement rate is then 6 percent.

Table 26.—Classroom teachers in regular elementary and secondary day schools, by institutional control and organizational level: United States, fall 1959 to 1979[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K-12	Elementary	Secondary	K-12	Elementary	Secondary	K-12	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1959 ...	1,531	952	580	1,355	832	524	176	120	56
1960 ...	1,600	991	609	1,408	858	550	192	133	[3]59
1961 ...	1,668	1,015	653	1,461	869	592	207	[3]146	61
1962 ...	1,727	1,036	690	1,508	886	621	219	150	69
1963 ...	1,806	1,062	743	1,578	908	669	228	154	74
1964 ...	1,882	1,096	786	1,648	940	708	234	156	78
	A. Includes Effect of Elementary and Secondary Education Act of 1965								
	ACTUAL								
1965 ...	1,951	1,122	828	1,710	965	746	240	[3]158	[3]82
1966 ...	2,032	1,167	866	1,789	1,006	783	243	161	83
1967 ...	2,087	1,193	895	1,855	1,040	815	232	152	80
1968 ...	2,162	1,223	938	1,936	1,076	860	225	[3]147	[3]78
1969 ...	2,241	1,255	985	2,014	1,108	906	227	147	80
	PROJECTED[4]								
1970 ...	2,275	1,261	1,014	2,050	1,115	935	225	146	80
1971 ...	2,289	1,247	1,041	2,065	1,103	962	224	144	80
1972 ...	2,295	1,229	1,067	2,073	1,086	987	222	143	80
1973 ...	2,303	1,208	1,095	2,080	1,064	1,015	224	144	80
1974 ...	2,306	1,192	1,114	2,080	1,046	1,034	225	146	80
1975 ...	2,305	1,180	1,126	2,079	1,033	1,046	226	147	80
1976 ...	2,308	1,175	1,133	2,080	1,027	1,053	228	148	80
1977 ...	2,311	1,180	1,130	2,082	1,031	1,051	229	149	80
1978 ...	2,316	1,192	1,123	2,086	1,042	1,044	230	150	80
1979 ...	2,320	1,217	1,104	2,089	1,065	1,024	231	152	80

See footnotes at end of table.

Table 26.—Classroom teachers in regular elementary and secondary day schools, by institutional control and organizational level: United States, fall 1959 to 1979[1] —Continued

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K-12	Elementary	Secondary	K-12	Elementary	Secondary	K-12	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	B. Excludes Effect of Elementary and Secondary Education Act of 1965								
	ESTIMATED[5]								
1965 ...	1,921	1,117	804	1,680	959	721	240	158	82
1966 ...	1,963	1,139	824	1,720	979	741	243	161	83
1967 ...	1,996	1,144	852	1,764	992	772	232	152	80
1968 ...	2,042	1,142	899	1,817	995	822	225	147	78
1969 ...	2,074	1,146	928	1,847	998	849	227	147	80
	PROJECTED[6]								
1970 ...	2,095	1,141	954	1,870	995	875	225	146	80
1971 ...	2,109	1,127	981	1,885	983	902	224	144	80
1972 ...	2,115	1,109	1,006	1,893	966	927	222	143	80
1973 ...	2,123	1,088	1,035	1,900	944	955	224	144	80
1974 ...	2,126	1,072	1,054	1,900	926	974	225	146	80
1975 ...	2,125	1,060	1,066	1,899	913	986	226	147	80
1976 ...	2,128	1,055	1,073	1,900	907	993	228	148	80
1977 ...	2,131	1,060	1,070	1,902	911	991	229	149	80
1978 ...	2,136	1,072	1,063	1,906	922	984	230	150	80
1979 ...	2,140	1,097	1,044	1,909	945	964	231	152	80

[1] Includes full-time and part-time classroom teachers (in 1969, 99 percent of teachers in the public schools were full-time). Does not include teachers in independent nursery and kindergarten schools, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, schools on Federal installations, and other schools not in the regular school system.

[2] Instructional staff classroom teachers are not reported separately. All data unless otherwise indicated are estimated. Estimates through 1964 revised spring 1968 on basis of 1965 Office of Education survey.

[3] Actual data from Office of Education surveys.

[4] The projection of classroom teachers in public schools, including the effect of the Elementary and Secondary Education Act of 1965 (ESEA), assumes that 180,000 more teachers will be employed each year than the number projected for corresponding years under the 1959-64 trend projections. This increase is based on 1969 experience, as well as on the amount of funds made available by provisions of ESEA.

The projection of classroom teachers in nonpublic schools is based on the assumption that the projected pupil-teacher ratios at each organizational level will follow the 1959-68 trends to 1979, with the restrictions that the elementary ratios will not go below 25 and the secondary ratios will not go below 17 pupils per teacher.

[5] Classroom teachers in public schools estimated, using the 1959-64 trend. Classroom teachers in nonpublic schools are the same as in section A.

[6] The projection of classroom teachers in public schools, excluding the effect of ESEA, is based on the assumption that the projected pupil-teacher ratios at each organizational level will follow the 1959-64 trend to 1979.

The projection of classroom teachers in nonpublic schools is the same as in section A.

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Classroom teacher data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of Public Schools," fall 1964 through 1969; (2) "Enrollment, Teachers, and Schoolhousing," fall 1959 through 1963; (3) "Statistics of State School Systems, 1959-60"; (4) prepublication data from "Statistics of Nonpublic Elementary and Secondary Schools, 1968-69"; (5) "Statistics of Nonpublic Elementary and Secondary Schools, 1965-66"; (6) "Statistics of Nonpublic Elementary Schools, 1961-62"; and (7) "Statistics of Nonpublic Secondary Schools, 1960-61."

Table 27.—Pupil-teacher ratios in regular elementary and secondary day schools, by institutional control and organizational level: United States, fall 1959 to 1979[1]

Year (fall)	Public		Nonpublic (estimated)[2]	
	Elementary	Secondary	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)
1959	28.7	21.5	38.8	18.5
1960	28.4	21.7	36.0	[3] 18.3
1961	28.3	21.7	[3] 33.3	18.0
1962	28.5	21.7	32.8	17.7
1963	28.4	21.5	32.3	17.4
1964	27.9	21.5	31.8	17.1
A. Includes Effect of Elementary and Secondary Education Act of 1965				
	ACTUAL			
1965	27.6	20.8	[3] 31.3	[3] 16.7
1966	26.9	20.3	30.8	16.9
1967	26.3	20.3	30.2	17.2
1968	25.4	20.4	[3] 29.7	[3] 17.4
1969	24.8	20.0	29.2	17.0
	PROJECTED[4]			
1970	24.5	20.0	28.8	17.0
1971	24.3	20.1	28.4	17.0
1972	24.2	20.1	28.0	17.0
1973	24.0	20.0	27.7	17.0
1974	23.9	20.1	27.4	17.0
1975	23.8	20.1	27.2	17.0
1976	23.7	20.1	27.0	17.0
1977	23.6	20.1	26.8	17.0
1978	23.6	20.0	26.6	17.0
1979	23.6	20.0	26.4	17.0
B. Excludes Effect of Elementary and Secondary Education Act of 1965				
	ESTIMATED[5]			
1965	27.8	21.5	31.3	16.7
1966	27.7	21.5	30.8	16.9
1967	27.6	21.4	30.2	17.2
1968	27.5	21.4	29.7	17.4
1969	27.5	21.4	29.2	17.0
	PROJECTED[6]			
1970	27.4	21.4	28.8	17.0
1971	27.3	21.4	28.4	17.0
1972	27.2	21.4	28.0	17.0
1973	27.1	21.3	27.7	17.0
1974	27.0	21.3	27.4	17.0
1975	26.9	21.3	27.2	17.0
1976	26.8	21.3	27.0	17.0
1977	26.7	21.3	26.8	17.0
1978	26.7	21.2	26.6	17.0
1979	26.6	21.2	26.4	17.0

See footnotes on page 60.

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[1] Includes full-time and part-time classroom teachers (in 1969, 99 percent of teachers in the public schools were full-time). Does not include teachers in independent nurseries and kindergarten schools, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, schools on Federal installations, and other schools not in the regular school system.

[2] Instructional staff and classroom teachers are not reported separately. All data unless otherwise indicated are estimated. Estimates through 1964 revised spring 1968 on basis of 1965 Office of Education survey.

[3] Actual data from Office of Education surveys.

[4] The projection of pupil-teacher ratios in the regular public schools, including the effect of the Elementary and Secondary Education Act of 1965 (ESEA), at each organizational level, is based on the ratio of enrollment to the number of teachers expected to be hired each year 1970 to 1979 with the continuation of ESEA.

The projection of pupil-teacher ratios in the nonpublic schools is based on the assumption that the projected pupil-teacher ratios at each organizational level will follow the 1959-68 trend to 1979, with the restrictions that the elementary ratios will not go below 25 and the secondary ratios will not go below 17 pupils per teacher.

[5] Pupil-teacher ratios in public schools estimated, using the 1959-64 trend. Pupil-teacher ratios in nonpublic schools are the same as in section A.

[6] The projection of pupil-teacher ratios in the regular public schools, excluding the effect of ESEA, is based on the assumption that the projected pupil-teacher ratios at each organizational level will follow the 1959-64 trend to 1979.

The projection of pupil-teacher ratios in the nonpublic schools is the same as in section A.

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Classroom teacher data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of Public Schools," fall 1964 through 1968; (2) "Enrollment, Teachers, and Schoolhousing," fall 1958 through 1963; (3) "Statistics of State School Systems, 1959-60"; (4) prepublication data from "Statistics of Nonpublic Elementary and Secondary Schools, 1968-69"; (5) "Statistics of Nonpublic Elementary and Secondary Schools, 1965-66"; (6) "Nonpublic School Enrollment in grades 9-12, Fall 1964, and Graduates, 1963-64"; (7) "Statistics of Nonpublic Elementary Schools, 1961-62"; and (8) "Statistics of Nonpublic Secondary Schools, 1960-61."

Table 28.—Estimated demand for classroom teachers in regular public elementary and secondary day schools: United States, fall 1964 to 1979[1]

Year (fall)	Total teacher demand	Demand for additional certificated teachers			
		Total	For enrollment increase	For pupil-teacher ratio changes	For teacher turnover
(1)	(2)	(3)	(4)	(5)	(6)
A. Includes Effect of Elementary and Secondary Education Act of 1965					
	ACTUAL				
1964	1,648,184	. . . . . .	. . . . . .	. . . . . .	. . . . . .
1965	1,710,319	193,990	28,832	33,303	131,855
1966	1,789,238	215,745	37,811	41,108	136,826
1967	1,855,189	209,090	43,180	22,771	143,139
1968	1,936,331	229,557	51,285	29,857	148,415
1969	2,013,836	232,411	34,944	42,561	154,906
1965-69	. . . . . .	1,080,793	196,052	169,600	715,141
	PROJECTED[2]				
1970	2,050,000	197,000	20,000	16,000	161,000
1971	2,065,000	179,000	11,000	5,000	164,000
1972	2,073,000	173,000	3,000	5,000	165,000
1973	2,080,000	172,000	–3,000	10,000	165,000
1974	2,080,000	167,000	. . . . . .	1,000	166,000
1970-74	. . . . . .	888,000	31,000	37,000	821,000
1975	2,079,000	165,000	–7,000	5,000	166,000
1976	2,080,000	168,000	–4,000	6,000	166,000
1977	2,082,000	168,000	–3,000	5,000	166,000
1978	2,086,000	170,000	–2,000	6,000	167,000
1979	2,089,000	171,000	1,000	2,000	167,000
1975-79	. . . . . .	842,000	–15,000	24,000	832,000
B. Excludes Effect of Elementary and Secondary Education Act of 1965					
	ESTIMATED[3]				
1965	1,680,000	164,000	29,000	3,000	132,000
1966	1,720,000	174,000	36,000	4,000	134,000
1967	1,764,000	182,000	37,000	7,000	138,000
1968	1,817,000	194,000	49,000	4,000	141,000
1969	1,847,000	176,000	31,000	. . . .	145,000
1965-69	. . . . . .	890,000	182,000	18,000	690,000

See footnotes at end of table.

Table 28.—Estimated demand for classroom teachers in regular public elementary and secondary day schools: United States, fall 1964 to 1979[1] —Continued

Year (fall) (1)	Total teacher demand (2)	Demand for additional certificated teachers: Total (3)	For enrollment increase (4)	For pupil-teacher ratio changes (5)	For teacher turnover (6)
		PROJECTED[4]			
1970	1,870,000	171,000	19,000	4,000	148,000
1971	1,885,000	166,000	12,000	4,000	150,000
1972	1,893,000	159,000	4,000	4,000	151,000
1973	1,900,000	158,000	−1,000	8,000	151,000
1974	1,900,000	152,000	−3,000	3,000	152,000
1970-74	......	806,000	31,000	23,000	752,000
1975	1,899,000	150,000	−5,000	3,000	152,000
1976	1,900,000	153,000	−2,000	3,000	152,000
1977	1,902,000	153,000	−2,000	3,000	152,000
1978	1,906,000	158,000	1,000	5,000	152,000
1979	1,909,000	156,000	......	4,000	152,000
1975-79	......	770,000	−8,000	18,000	760,000

[1] Includes full-time and part-time classroom teachers (in 1969, 99 percent of teachers in the public schools were full-time). Does not include teachers in independent nurseries and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, schools on Federal installations, and other schools not in the regular school system.

[2] The projection of classroom teachers in public schools, including the effect of the Elementary and Secondary Education Act of 1965 (ESEA), assumes an additional increase in classroom teachers of 180,000 each year over the number projected under the 1959-64 trend assumptions. This increase is based on 1969 experience as well as on the amount of funds made available by provisions of ESEA.

[3] Estimated, using the 1959-64 trend.

[4] The projection, excluding the effect of ESEA, of demand for teachers in the public schools in addition to those retained from the previous year was based on the following assumptions: (1) For enrollment increase, the number of additional teachers needed will be the difference between the projected number that must be employed in a given year to maintain the 1959-64 trend in the pupil-teacher ratio and the similarly projected number in the previous year; and (2) for teacher turnover, the number of additional teachers needed to replace those leaving the profession either temporarily or permanently will be 8 percent of the total employed in the previous year. The 8 percent separation rate is based on the Office of Education study "Teacher Turnover in Public Elementary and Secondary Schools, 1959-60."

The projected demand makes no allowance for replacement of teachers who hold substandard certificates (about 5 percent of employed teachers).

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of Public Schools," fall 1964 through 1969; and (2) "Enrollment, Teachers, and Schoolhousing," 1959 through 1963.

Table 29.—Estimated demand for classroom teachers in regular nonpublic elementary and secondary day schools: United States, fall 1964 to 1979

Year (fall)	Total teacher demand	Demand for additional certificated teachers			
		Total	For enrollment increase	For pupil-teacher ratio changes	For teacher turnover
(1)	(2)	(3)	(4)	(5)	(6)
1964	234,000	......	......	......	......
1965	240,000	15,000	1,000	5,000	9,000
1966	243,000	14,000	2,000	2,000	10,000
1967	232,000	–1,000	–13,000	2,000	10,000
1968	225,000	2,000	–9,000	2,000	9,000
1969	227,000	10,000	–3,000	4,000	9,000
1965-69	......	40,000	–22,000	15,000	47,000
			PROJECTED[1]		
1970	225,000	8,000	–3,000	2,000	9,000
1971	224,000	8,000	–3,000	2,000	9,000
1972	222,000	7,000	–4,000	2,000	9,000
1973	224,000	10,000	......	2,000	9,000
1974	225,000	11,000	......	2,000	9,000
1970-74	......	44,000	–10,000	10,000	45,000
1975	226,000	10,000	......	1,000	9,000
1976	228,000	10,000	......	1,000	9,000
1977	229,000	10,000	......	1,000	9,000
1978	230,000	10,000	......	1,000	9,000
1979	231,000	10,000	......	1,000	9,000
1975-79	......	50,000	......	5,000	45,000

[1] The projection of demand for teachers in the nonpublic schools in addition to those retained from the previous year was based on the following assumptions: (1) For enrollment increase, the number of additional teachers needed will be the difference between the projected number that must be employed in a given year to maintain the 1959-68 trend in pupil-teacher ratios and the similarly projected number in the previous year; and (2) for teacher turnover, the number of additional teachers needed to replace those leaving the nonpublic schools either temporarily or permanently is assumed to be 4 percent of the total employed in the previous year.

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) Prepublication data from "Statistics of Nonpublic Elementary and Secondary Schools, 1968-69"; (2) "Statistics of Nonpublic Elementary and Secondary Schools, 1965-66"; (3) "Statistics of Nonpublic Elementary Schools, 1961-62"; and (4) "Statistics of Nonpublic Secondary Schools, 1960-61."

Table 30.—Estimated instructional staff in regular elementary and secondary day schools, by institutional control: United States, fall 1959 to 1979[1]

[In thousands]

Year (fall) (1)	Total (2)	Public schools (3)	Nonpublic schools[2] (4)
1959	1,639	1,463	176
1960	1,718	1,526	192
1961	1,798	1,591	207
1962	1,866	1,647	219
1963	1,956	1,728	228
1964	2,046	1,811	235
A. Includes Effect of Elementary and Secondary Education Act of 1965			
		ACTUAL[3]	
1965	2,125	1,885	240
1966	2,231	1,988	243
1967	2,309	2,077	232
1968	2,399	2,174	225
1969	2,497	2,270	227
		PROJECTED[4]	
1970	2,541	2,316	225
1971	2,566	2,342	224
1972	2,579	2,357	222
1973	2,597	2,373	224
1974	2,605	2,380	225
1975	2,613	2,387	226
1976	2,622	2,394	228
1977	2,634	2,405	229
1978	2,644	2,414	230
1979	2,652	2,421	231
B. Excludes Effect of Elementary and Secondary Education Act of 1965			
		ESTIMATED[5]	
1965	2,091	1,851	240
1966	2,154	1,911	243
1967	2,208	1,976	232
1968	2,265	2,040	225
1969	2,309	2,082	227
		PROJECTED[6]	
1970	2,338	2,113	225
1971	2,362	2,138	224
1972	2,374	2,152	222
1973	2,392	2,168	224
1974	2,399	2,174	225
1975	2,406	2,180	226
1976	2,415	2,187	228
1977	2,426	2,197	229
1978	2,435	2,205	230
1979	2,444	2,213	231

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[1] Instructional staff includes principals, supervisors, librarians, and guidance and psychological personnel, as well as full-time and part-time classroom teachers. (In 1969, 99 percent of classroom teachers were full time.) Does not include instructional staff in independent nursery and kindergarten schools, residential schools for exceptional children, subcollegiate departments of higher education, Federal schools for Indians, schools on Federal installations, and other schools not in the regular school system.

[2] Instructional staff and classroom teachers are not reported separately. All data unless otherwise indicated are wholly or partially estimated. Estimates through 1964 revised spring 1968 on basis of 1965 Office of Education survey.

[3] Actual data from Office of Education surveys.

[4] The projection of instructional staff in public schools, including the effect of ESEA, assumes an increase over the number expected on the basis of trend alone of approximately 205,000 each year. The projection of this increase is based on 1969 experience and on the amount of funds made available by provisions of ESEA.

[5] Estimated, using the 1959-64 trend.

[6] The projection of instructional staff in regular public schools, excluding the effect of ESEA, is based on the assumption that the ratio of instructional staff to classroom teachers will follow the 1959-64 trend. The projection of instructional staff in nonpublic schools is the same as for classroom teachers (table 26).

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Instructional staff data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of State School Systems," biennial circulars 1959-60 through 1967-68; (2) prepublication data from "Statistics of Nonpublic Elementary and Secondary Schools, 1968-69"; (3) "Statistics of Nonpublic Elementary and Secondary Schools, 1965-66"; (4) "Statistics of Nonpublic Elementary Schools, 1961-62"; and (5) "Statistics of Nonpublic Secondary Schools, 1960-61."

Table 31.—Full-time and part-time instructional staff positions for instruction in resident degree-credit courses in all institutions of higher education, by professional rank: United States, first term 1959-60 to 1979-80

Year	Total	Instructor or above			Junior instructor
		Total	Full-time	Part-time	
(1)	(2)	(3)	(4)	(5)	(6)
1959-60	281,506	242,914	162,292	80,622	38,592
[1] 1960-61	294,000	253,000	169,000	84,000	42,000
1961-62	310,772	264,749	177,052	87,697	46,023
[1] 1962-63	334,000	285,000	190,000	95,000	49,000
1963-64	355,542	302,896	202,396	100,500	52,646
[1] 1964-65	391,000	332,000	222,000	110,000	59,000
[1] 1965-66	435,000	369,000	247,000	123,000	65,000
[2] 1966-67	465,000	396,000	264,000	131,000	70,000
[2] 1967-68	521,000	443,000	296,000	147,000	78,000
[2] 1968-69	555,000	472,000	315,000	157,000	83,000
[2] 1969-70	578,000	491,000	328,000	163,000	87,000
			PROJECTED[3]		
1970-71	592,000	503,000	336,000	167,000	89,000
1971-72	617,000	524,000	350,000	174,000	93,000
1972-73	644,000	548,000	366,000	182,000	96,000
1973-74	673,000	572,000	382,000	190,000	101,000
1974-75	698,000	593,000	396,000	197,000	105,000
1975-76	720,000	612,000	409,000	203,000	108,000
1976-77	741,000	630,000	421,000	209,000	111,000
1977-78	760,000	646,000	432,000	214,000	114,000
1978-79	780,000	663,000	443,000	220,000	117,000
1979-80	801,000	681,000	455,000	226,000	120,000

[1] Interpolated.

[2] Estimated. See appendix A, "Estimation Methods."

[3] The projection of total full-time and part-time instructional staff positions for instruction in resident degree-credit courses was computed separately by institutional control and type categories as outlined in tables 34 to 37, footnote 4, and then summed for all institutions. The projections were based on the assumption that the ratio of total degree-credit enrollment to instructional staff positions for instruction in resident degree-credit courses in each institution by control and type will follow the 1959-60 to 1967-68 trend to 1979-80.

The projection of instructional staff positions of full-time instructor or above, part-time instructor or above, and junior instructor is based on the percentage each type of position was of total full-time and part-time instructional staff positions for instruction in resident degree-credit courses in 1963-64. These percentages were 57, 28, and 15 percent, respectively, and are assumed to remain at the 1963-64 level to 1979-80.

For methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: "Numbers and Characteristics of Employees in Institutions of Higher Education," fall 1966 and 1967, and "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, first term 1959-60 to 1963-64.

Table 32.—Estimated full-time-equivalent instructional staff for resident degree-credit courses in all institutions of higher education, by professional rank: United States, first term 1959-60 to 1979-80

Year	Estimated total full-time equivalent	Instructor or above			Junior instructor
		Total	Full-time	Full-time equivalent of part time	Estimated full-time equivalent
(1)	(2)	(3)	(4)	(5)	(6)
1959-60	200,850	187,850	162,292	25,558	13,000
[1] 1960-61	210,000	196,000	169,000	27,000	14,000
1961-62	221,553	206,553	177,052	29,501	15,000
[1] 1962-63	237,000	221,000	190,000	31,000	16,000
1963-64	252,013	235,013	202,396	32,617	17,000
[1] 1964-65	278,000	258,000	222,000	36,000	19,000
[1] 1965-66	309,000	287,000	247,000	40,000	22,000
[2] 1966-67	331,000	308,000	264,000	43,000	23,000
[2] 1967-68	371,000	345,000	296,000	49,000	26,000
[2] 1968-69	394,000	367,000	315,000	52,000	27,000
[2] 1969-70	411,000	382,000	328,000	54,000	29,000
			PROJECTED[3]		
1970-71	420,000	391,000	336,000	55,000	29,000
1971-72	438,000	407,000	350,000	57,000	31,000
1972-73	458,000	426,000	366,000	60,000	32,000
1973-74	478,000	445,000	382,000	63,000	33,000
1974-75	496,000	461,000	396,000	65,000	35,000
1975-76	512,000	476,000	409,000	67,000	36,000
1976-77	527,000	490,000	421,000	69,000	37,000
1977-78	541,000	503,000	432,000	71,000	38,000
1978-79	555,000	516,000	443,000	73,000	39,000
1979-80	570,000	530,000	455,000	75,000	40,000

[1] Interpolated.

[2] Estimated. See appendix A, "Estimation Methods."

[3] The projection of full-time equivalent of part-time instructional staff positions for resident degree-credit courses is based on the following assumptions: (1) Full-time equivalent of the position of part-time instructor or above will remain constant to 1979-80 at the 1963-64 level of 33 percent, and (2) this percentage will apply to the position of junior instructor also, and will remain constant to 1979-80.

For methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: "Numbers and Characteristics of Employees in Institutions of Higher Education," fall 1966 and 1967, and "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, first term 1959-60 to 1963-64.

Table 33.—Total full-time and part-time professional staff positions in all institutions of higher education, by function: United States, first term 1959-60 to 1979-80

		Instructional staff positions			Other professional staff positions		
Year	Total professional staff positions[1]	Total	Resident degree-credit courses[2]	Other instruction[3]	Total	Administration and services[4]	Organized research[5]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60 ..	418,788	337,987	281,506	56,481	80,801	43,965	36,836
[6] 1960-61 ..	439,000	350,000	294,000	56,000	88,000	46,000	43,000
1961-62 ..	464,658	366,878	310,772	56,106	97,780	48,154	49,626
[6] 1962-63 ..	506,000	395,000	334,000	61,000	110,000	53,000	57,000
1963-64 ..	544,719	421,849	355,542	66,307	122,870	58,367	64,503
[6] 1964-65 ..	595,000	466,000	391,000	75,000	129,000	64,000	65,000
[6] 1965-66 ..	658,000	520,000	435,000	86,000	138,000	71,000	67,000
[7] 1966-67 ..	700,000	559,000	465,000	93,000	141,000	76,000	65,000
[7] 1967-68 ..	782,000	626,000	521,000	105,000	156,000	84,000	72,000
[7] 1968-69 ..	836,000	670,000	555,000	116,000	165,000	89,000	77,000
[7] 1969-70 ..	872,000	700,000	578,000	122,000	172,000	91,000	80,000
			PROJECTED[8]				
1970-71 ..	895,000	719,000	592,000	127,000	176,000	93,000	82,000
1971-72 ..	933,000	751,000	617,000	133,000	183,000	97,000	86,000
1972-73 ..	976,000	785,000	644,000	141,000	191,000	101,000	90,000
1973-74 ..	1,021,000	821,000	673,000	148,000	199,000	105,000	94,000
1974-75 ..	1,059,000	853,000	698,000	155,000	206,000	109,000	97,000
1975-76 ..	1,094,000	881,000	720,000	161,000	212,000	112,000	100,000
1976-77 ..	1,126,000	908,000	741,000	167,000	218,000	115,000	103,000
1977-78 ..	1,156,000	933,000	760,000	173,000	224,000	118,000	106,000
1978-79 ..	1,187,000	958,000	780,000	178,000	229,000	121,000	109,000
1979-80 ..	1,221,000	986,000	801,000	185,000	235,000	124,000	112,000

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[1] Excludes professional staff positions for instruction at the elementary and secondary school level.

[2] Includes faculty positions with rank of instructor or above and junior instructional staff.

[3] Includes instructional staff positions for extension courses; resident nondegree-credit courses; instruction by mail, radio, and TV; short courses; and individual lessons.

[4] Includes professional staff positions for general administration, student personnel services, and libraries.

[5] Excludes positions of graduate students not performing research at a professional level and research consultants employed occasionally. Prior to 1966-67, includes positions of professional staff engaged specifically for full-time or part-time research and those who have been relieved from some or all other duties in order to perform systematic organized research. Beginning in 1966-67, only positions of those engaged primarily in organized research are included.

[6] Interpolated.

[7] Estimated. See appendix A, "Estimation Methods."

[8] The projection of total full-time and part-time professional staff positions for instruction in resident degree-credit courses, for instruction in other than resident degree-credit courses, for administration and services, and for organized research was computed separately by institutional control and type categories as outlined in tables 34 through 37, footnote 4, and then summed for all institutions.

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: "Numbers and Characteristics of Employees in Institutions of Higher Education," fall 1966 and 1967, and "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, first term 1959-60 to 1963-64.

Table 34.—Total full-time and part-time professional staff positions in 4-year publicly controlled institutions of higher education, by function: United States, first term 1959-60 to 1979-80[1]

Year	Total professional staff positions	Instructional staff positions			Other professional staff positions		
		Total	Resident degree-credit courses	Other instruction	Total	Administration and services	Organized research
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60 . .	199,543	162,074	126,136	35,938	37,469	15,369	22,100
[2] 1960-61 . .	209,000	169,000	132,000	36,000	41,000	16,000	24,000
1961-62 . .	222,282	177,354	140,541	36,813	44,928	17,510	27,418
[2] 1962-63 . .	247,000	195,000	155,000	40,000	52,000	20,000	32,000
1963-64 . .	272,746	212,797	169,497	43,300	59,949	22,563	37,386
[2] 1964-65 . .	305,000	240,000	190,000	49,000	65,000	25,000	40,000
[2] 1965-66 . .	344,000	272,000	216,000	56,000	72,000	28,000	44,000
[3] 1966-67 . .	371,000	294,000	233,000	61,000	77,000	30,000	46,000
[3] 1967-68 . .	413,000	328,000	260,000	68,000	86,000	34,000	52,000
[3] 1968-69 . .	452,000	358,000	284,000	74,000	94,000	37,000	57,000
[3] 1969-70 . .	479,000	380,000	301,000	78,000	99,000	39,000	60,000
				PROJECTED[4]			
1970-71 . .	494,000	392,000	311,000	81,000	103,000	40,000	62,000
1971-72 . .	519,000	411,000	326,000	85,000	108,000	42,000	65,000
1972-73 . .	548,000	434,000	345,000	90,000	114,000	45,000	69,000
1973-74 . .	577,000	457,000	363,000	94,000	120,000	47,000	73,000
1974-75 . .	603,000	478,000	379,000	99,000	125,000	49,000	76,000
1975-76 . .	624,000	495,000	393,000	102,000	130,000	51,000	79,000
1976-77 . .	647,000	513,000	407,000	106,000	134,000	53,000	81,000
1977-78 . .	668,000	529,000	420,000	109,000	139,000	55,000	84,000
1978-79 . .	688,000	545,000	433,000	112,000	143,000	56,000	87,000
1979-80 . .	713,000	565,000	448,000	117,000	148,000	58,000	89,000

[1] For exclusions and inclusions under the different categories of professional staff positions, see table 33, footnotes 1 through 5.

[2] Interpolated.

[3] Estimated. See appendix A, "Estimation Methods."

[4] The projection of total full-time and part-time professional staff positions for instruction in resident degree-credit courses in 4-year publicly controlled institutions is based on the assumption that the ratio of total degree-credit enrollment to total professional staff positions for instruction in resident degree-credit courses in these institutions will follow the 1959-60 to 1963-64 trend.

The projection of total full-time and part-time professional staff positions for instruction in other than resident degree-credit courses, for administration and services, and for organized research, is based on the percentage each type of position was of total full-time and part-time professional staff positions for instruction in resident degree-credit courses in 1963-64. These percentages in 4-year publicly controlled institutions were 26, 13, and 20, respectively, and are assumed to remain at the 1963-64 level to 1979-80.

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: "Numbers and Characteristics of Employees in Institutions of Higher Education," fall 1966 and 1967, and "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, first term 1959-60 to 1963-64.

Table 35.—Total full-time and part-time professional staff positions in 4-year privately controlled institutions of higher education, by function: United States, first term 1959-60 to 1979-80[1]

Year	Total professional staff positions	Instructional staff positions			Other professional staff positions		
		Total	Resident degree-credit courses	Other instruction	Total	Administration and services	Organized research
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60 ..	179,515	141,691	132,354	9,337	37,824	23,139	14,685
[2] 1960-61 ..	188,000	146,000	137,000	9,000	42,000	24,000	18,000
1961-62 ..	198,635	151,763	143,347	8,416	46,872	24,791	22,081
[2] 1962-63 ..	210,000	159,000	149,000	9,000	51,000	27,000	24,000
1963-64 ..	219,759	164,012	153,991	10,021	55,747	28,749	26,998
[2] 1964-65 ..	230,000	174,000	163,000	11,000	56,000	31,000	25,000
[2] 1965-66 ..	240,000	185,000	173,000	11,000	55,000	33,000	22,000
[3] 1966-67 ..	245,000	192,000	180,000	12,000	53,000	34,000	19,000
[3] 1967-68 ..	272,000	214,000	201,000	13,000	58,000	38,000	20,000
[3] 1968-69 ..	270,000	212,000	199,000	13,000	58,000	38,000	20,000
[3] 1969-70 ..	270,000	212,000	200,000	13,000	58,000	38,000	20,000
				PROJECTED[4]			
1970-71 ..	271,000	213,000	200,000	13,000	58,000	38,000	20,000
1971-72 ..	276,000	217,000	204,000	13,000	59,000	39,000	20,000
1972-73 ..	280,000	220,000	206,000	13,000	60,000	39,000	21,000
1973-74 ..	286,000	225,000	211,000	14,000	61,000	40,000	21,000
1974-75 ..	288,000	227,000	213,000	14,000	62,000	40,000	21,000
1975-76 ..	293,000	230,000	216,000	14,000	63,000	41,000	22,000
1976-77 ..	293,000	230,000	216,000	14,000	63,000	41,000	22,000
1977-78 ..	295,000	232,000	218,000	14,000	63,000	41,000	22,000
1978-79 ..	296,000	233,000	219,000	14,000	63,000	42,000	22,000
1979-80 ..	298,000	234,000	220,000	14,000	64,000	42,000	22,000

[1] For exclusions and inclusions under the different categories of professional staff positions, see table 33, footnotes 1 through 5.

[2] Interpolated.

[3] Estimated. See appendix A, "Estimation Methods."

[4] The projection of total full-time and part-time professional staff positions for instruction in resident degree-credit courses in 4-year privately controlled institutions is based on the assumption that the ratio of total degree-credit enrollment to total professional staff positions for instruction in resident degree-credit courses in these institutions will follow the 1959-60 to 1963-64 trend.

The projection of total full-time and part-time professional staff positions for instruction in other than resident degree-credit courses, for administration and services, and for organized research, is based on the percentage each type of position was of total full-time and part-time professional staff positions for instruction in resident degree-credit courses in 1963-64. These percentages in 4-year privately controlled institutions were 7, 19, and 10, respectively, and are assumed to remain at the 1963-64 level to 1979-80.

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: "Numbers and Characteristics of Employees in Institutions of Higher Education," fall 1966 and 1967, and "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, first term 1959-60 to 1963-64.

Table 36.—Total full-time and part-time professional staff positions in 2-year publicly controlled institutions of higher education, by function: United States, first term 1959-60 to 1979-80[1]

Year	Total professional staff positions	Instructional staff positions			Other professional staff positions		
		Total	Resident degree-credit courses	Other instruction	Total	Administration and services	Organized research
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60 ..	30,408	27,440	18,405	9,035	2,968	2,961	7
[2] 1960-61 ..	32,000	29,000	20,000	9,000	3,000	3,000	8
1961-62 ..	34,382	30,966	22,062	8,904	3,416	3,406	10
[2] 1962-63 ..	38,000	34,000	24,000	10,000	4,000	4,000	24
1963-64 ..	41,462	37,365	26,545	10,820	4,097	4,055	42
[2] 1964-65 ..	48,000	43,000	31,000	12,000	5,000	5,000	L
[2] 1965-66 ..	58,000	53,000	38,000	15,000	6,000	6,000	L
[3] 1966-67 ..	69,000	62,000	44,000	18,000	7,000	7,000	L
[3] 1967-68 ..	82,000	74,000	53,000	21,000	8,000	8,000	L
[3] 1968-69 ..	99,000	90,000	64,000	26,000	10,000	10,000	L
[3] 1969-70 ..	110,000	99,000	71,000	28,000	11,000	11,000	L
				PROJECTED[4]			
1970-71 ..	117,000	105,000	75,000	30,000	11,000	11,000	L
1971-72 ..	125,000	113,000	80,000	32,000	12,000	12,000	L
1972-73 ..	134,000	121,000	86,000	35,000	13,000	13,000	L
1973-74 ..	143,000	129,000	92,000	37,000	14,000	14,000	L
1974-75 ..	152,000	137,000	98,000	39,000	15,000	15,000	L
1975-76 ..	161,000	145,000	103,000	42,000	16,000	16,000	L
1976-77 ..	169,000	152,000	109,000	44,000	16,000	16,000	L
1977-78 ..	176,000	159,000	114,000	46,000	17,000	17,000	L
1978-79 ..	185,000	167,000	119,000	48,000	18,000	18,000	L
1979-80 ..	193,000	174,000	124,000	50,000	19,000	19,000	L

"L" = less than 500.

[1] For exclusions and inclusions under the different categories of professional staff positions, see table 33, footnotes 1 through 5.

[2] Interpolated.

[3] Estimated. See appendix A, "Estimation Methods."

[4] The projection of total full-time and part-time professional staff positions for instruction in resident degree-credit courses in 2-year publicly controlled institutions is based on the assumption that the ratio of total degree-credit enrollment to total professional staff positions for instruction in resident degree-credit courses in these institutions will follow the 1959-60 to 1963-64 trend.

The projection of total full-time and part-time professional staff positions for instruction in other than resident degree-credit courses, for administration and services, and for organized research, is based on the percentage each type of position was of total full-time and part-time professional staff positions for instruction in resident degree-credit courses in 1963-64. These percentages in 2-year publicly controlled institutions were 40, 15, and .05, respectively, and are assumed to remain at the 1963-64 level to 1979-80.

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: "Numbers and Characteristics of Employees in Institutions of Higher Education," fall 1966 and 1967, and "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, first term 1959-60 to 1963-64.

Table 37.—Total full-time and part-time professional staff positions in 2-year privately controlled institutions of higher education, by function: United States, first term 1959-60 to 1979-80[1]

Year	Total professional staff positions	Instructional staff positions			Other professional staff positions		
		Total	Resident degree-credit courses	Other instruction	Total	Administration and services	Organized research
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60 ..	9,322	6,782	4,611	2,171	2,540	2,496	44
[2] 1960-61 ..	9,300	6,800	4,700	2,100	2,500	2,500	100
1961-62 ..	9,359	6,795	4,822	1,973	2,564	2,447	117
[2] 1962-63 ..	10,400	7,500	5,300	2,100	2,900	2,800	100
1963-64 ..	10,752	7,675	5,509	2,166	3,077	3,000	77
[2] 1964-65 ..	13,200	9,400	6,800	2,600	3,800	3,710	100
[3] 1965-66 ..	15,200	10,900	7,800	3,000	4,400	4,300	100
[3] 1966-67 ..	15,500	11,100	8,000	3,100	4,500	4,400	100
[3] 1967-68 ..	14,200	10,100	7,300	2,800	4,100	4,000	100
[3] 1968-69 ..	14,800	10,500	7,600	3,000	4,200	4,200	100
[3] 1969-70 ..	12,400	8,800	6,400	2,500	3,600	3,500	100
				PROJECTED[4]			
1970-71 ..	12,800	9,100	6,600	2,600	3,700	3,600	100
1971-72 ..	13,500	9,600	6,900	2,700	3,900	3,800	100
1972-73 ..	14,200	10,100	7,300	2,800	4,100	4,000	100
1973-74 ..	15,000	10,700	7,700	3,000	4,300	4,200	100
1974-75 ..	15,600	11,100	8,000	3,100	4,500	4,400	100
1975-76 ..	16,100	11,500	8,300	3,200	4,600	4,500	100
1976-77 ..	16,700	11,900	8,600	3,300	4,800	4,700	100
1977-78 ..	17,300	12,300	8,800	3,500	5,000	4,900	100
1978-79 ..	17,600	12,500	9,000	3,500	5,100	5,000	100
1979-80 ..	18,000	12,900	9,200	3,600	5,200	5,100	100

[1] For exclusions and inclusions under the different categories of professional staff positions, see table 33, footnotes 1 through 5.

[2] Interpolated.

[3] Estimated. See appendix A, "Estimation Methods."

[4] The projection of total full-time and part-time professional staff positions for instruction in resident degree-credit courses in 2-year privately controlled institutions is based on the assumption that the ratio of total degree-credit enrollment to total professional staff positions for instruction in resident degree-credit courses in these institutions will follow the 1959-60 to 1963-64 trend.

The projection of total full-time and part-time professional staff positions for instruction in other than resident degree-credit courses, for administration and services, and for organized research, is based on the percentage each type of position was of total full-time and part-time professional staff positions for instruction in resident degree-credit courses in 1963-64. These percentages in 2-year privately controlled institutions were 39, 55, and 1 percent, respectively, and are assumed to remain at the 1963-64 level to 1979-80.

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: "Numbers and Characteristics of Employees in Institutions of Higher Education," fall 1966 and 1967, and "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, first term 1959-60 to 1963-64.

Table 38.—Estimated full-time-equivalent professional staff in all institutions of higher education, by function: United States, first term 1959-60 to 1979-80[1]

Year	Total full-time-equivalent professional staff	Full-time-equivalent instructional staff			Full-time-equivalent other professional staff		
		Total	Resident degree-credit courses	Other instruction	Total	Administration and services	Organized research
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60	298,000	241,000	201,000	40,000	57,000	31,000	26,000
1960-61	313,000	250,000	210,000	40,000	63,000	32,000	31,000
1961-62	332,000	261,000	222,000	40,000	70,000	34,000	36,000
1962-63	359,000	281,000	237,000	44,000	79,000	38,000	41,000
1963-64	387,000	299,000	252,000	47,000	87,000	41,000	46,000
1964-65	423,000	331,000	278,000	53,000	92,000	45,000	46,000
1965-66	467,000	370,000	309,000	61,000	98,000	50,000	47,000
1966-67	497,000	397,000	331,000	66,000	100,000	54,000	46,000
1967-68	557,000	446,000	371,000	75,000	111,000	60,000	51,000
1968-69	594,000	476,000	394,000	82,000	118,000	63,000	55,000
1969-70	620,000	498,000	411,000	87,000	122,000	65,000	57,000
				PROJECTED			
1970-71	634,000	510,000	420,000	90,000	124,000	66,000	58,000
1971-72	662,000	532,000	438,000	94,000	130,000	69,000	61,000
1972-73	694,000	558,000	458,000	100,000	136,000	72,000	64,000
1973-74	725,000	583,000	478,000	105,000	142,000	75,000	67,000
1974-75	752,000	606,000	496,000	110,000	146,000	77,000	69,000
1975-76	777,000	626,000	512,000	114,000	151,000	80,000	71,000
1976-77	801,000	646,000	527,000	119,000	155,000	82,000	73,000
1977-78	823,000	664,000	541,000	123,000	159,000	84,000	75,000
1978-79	844,000	681,000	555,000	126,000	163,000	86,000	77,000
1979-80	869,000	701,000	570,000	131,000	168,000	88,000	80,000

[1] For the categories of professional staff positions included and excluded in this table, see footnotes 1 through 5, table 33.

The estimation, 1959-60 to 1969-70 and the projection, 1970-71 to 1979-80 of the full-time equivalent of reported and projected total full-time and part-time professional staff positions for instruction in courses other than resident degree-credit, for administration and services, and for organized research, are based on the assumption that the percentage that full-time-equivalent professional staff for instruction in resident degree-credit courses is of total full-time and part-time professional staff positions for instruction in these courses (71 percent in 1963-64) will apply to all other professional staff positions as well. The totals of each type of full-time and part-time professional staff positions shown in table 33 were multiplied by this percentage.

For further methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Numbers and Characteristics of Employees in Institutions of Higher Education," fall 1966 and 1967, and (2) "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, first term 1959-60 to 1963-64.

Table 39.—Estimated demand for full-time-equivalent professional staff in institutions of higher education, by primary function: United States, first term 1964-65 to 1979-80[1]

Year	Full-time-equivalent professional staff[2]					Additional full-time-equivalent professional staff needed		
		Instructional staff						
	Total	For resident degree-credit courses	Other instructional staff	Administration and services	Organized research	Total	For increased enrollment and reduction of student-staff ratio	For replacement
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1964-65 ..	423,000	278,000	53,000	45,000	46,000	......	......	......
1965-66 ..	467,000	309,000	61,000	50,000	47,000	69,000	44,000	25,000
1966-67 ..	497,000	331,000	66,000	54,000	46,000	58,000	30,000	28,000
1967-68 ..	557,000	371,000	75,000	60,000	51,000	90,000	60,000	30,000
1968-69 ..	594,000	394,000	82,000	63,000	55,000	70,000	37,000	33,000
1969-70 ..	620,000	411,000	87,000	65,000	57,000	62,000	26,000	36,000
1965-70 ..	2,735,000	1,816,000	371,000	292,000	256,000	349,000	197,000	152,000
				PROJECTED[3]				
1970-71 ..	634,000	420,000	90,000	66,000	58,000	51,000	14,000	37,000
1971-72 ..	662,000	438,000	94,000	69,000	61,000	66,000	28,000	38,000
1972-73 ..	694,000	458,000	100,000	72,000	64,000	72,000	32,000	40,000
1973-74 ..	725,000	478,000	105,000	75,000	67,000	73,000	31,000	42,000
1974-75 ..	752,000	496,000	110,000	77,000	69,000	71,000	27,000	44,000
1970-75 ..	3,467,000	2,290,000	499,000	359,000	319,000	333,000	132,000	201,000
1975-76 ..	777,000	512,000	114,000	80,000	71,000	70,000	25,000	45,000
1976-77 ..	801,000	527,000	119,000	82,000	73,000	71,000	24,000	47,000
1977-78 ..	823,000	541,000	123,000	84,000	75,000	70,000	22,000	48,000
1978-79 ..	844,000	555,000	126,000	86,000	77,000	70,000	21,000	49,000
1979-80 ..	869,000	570,000	131,000	88,000	80,000	76,000	25,000	51,000
1975-80 ..	4,114,000	2,705,000	613,000	420,000	376,000	357,000	117,000	240,000

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[1] For the purpose of estimating demand, the number of full-time-equivalent professional staff members is considered to be equivalent to the number of full-time-equivalent professional staff positions.

For the categories of professional staff positions included and excluded in this table, see table 33, footnotes 1 through 5.

[2] For the method of estimating and projecting full-time-equivalent professional staff, see table 32, footnote 3 and table 38, footnote 2.

[3] The projection of additional full-time-equivalent professional staff for increased enrollment and for reduction of the student-staff ratio was computed as the difference between the total full-time-equivalent professional staff employed in two successive years.

The projection of additional full-time-equivalent professional staff for replacement of those leaving the profession, temporarily or permanently, was estimated at 6 percent of the total full-time-equivalent professional staff employed in the previous year.

For methodological details, see appendix table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Numbers and Characteristics of Employees in Institutions of Higher Education," fall 1966 and 1967, and (2) "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, first term 1959-60 to 1963-64.

CHAPTER V

Expenditures of Educational Institutions

Forrest W. Harrison and *C. George Lind*

Explanations and definitions

The main tables in this chapter include only expenditures of regular public and nonpublic elementary and secondary schools and institutions of higher education in the 50 States and the District of Columbia. This means that "other" and "special" institutions are not included.

"Other" institutions include elementary and secondary residential schools for exceptional children (public and nonpublic), Federal schools for Indians (public), and federally operated elementary and secondary schools on military posts (public). In 1969-70, it is estimated that expenditures of "other" schools were about $200 million for public and $100 million for nonpublic schools in this category. Almost all "other" schools, including the nonpublic, are nonprofitmaking institutions.

"Special" institutions include schools such as trade schools or business colleges not in the regular school or college framework. Expenditure data are not available for "special" schools, but it is estimated that they spend approximately $900 million per year. This supposition is based on a U. S. Bureau of the Census estimate that 1.5 million persons, aged 5 to 34 years, were enrolled in "special" schools in October 1969.[1] If an average expenditure per student of about $600 is assumed, the total expenditures for these schools would be about $900 million. Almost all "special" schools are nonpublic profitmaking institutions.

Regular institutions include public and most nonprofitmaking nonpublic elementary and secondary schools (kindergarten through grade 12) plus the institutions of higher education offering degree-credit courses, and a small number of technical and professional schools. Most of these schools and colleges are oriented toward regular academic programs, but some of them are primarily technical training institutions or offer both academic and vocational courses. As noted, the main tables and discussions here are for these regular institutions. However, "other" schools are included in the discussion and table on pages 76 and 77-81.

Total expenditures include all funds expended for capital outlay, current expenditures, and interest. They exclude repayment of debt and transfers of funds that would result in duplication.

Capital outlay includes expenditures which result in additions to plant assets; this includes the expenditures by public school building authorities but excludes lease or rental payments made to these agencies. Borrowed money is included; a large percentage of the funds expended for capital outlay was received from loans. In 1967-68, it is estimated that 81 percent of the capital outlay for public elementary and secondary schools was for land and buildings; the remaining 19 percent, for new school buses and other equipment. The proportion for equipment could be higher than 19 percent in 1969-70 because a substantial amount of the funds available from the Elementary and Secondary Education Act of 1965 was spent for equipment. About 81 percent of the capital outlay by institutions of higher education was for land and buildings; the remaining 19 percent, for equipment.

Current expenditures include any expenditures except those for repayment of debt and capital outlay. Interest is generally excluded from the current expenditures shown here because it is treated separately. The largest current expense item is salaries of instructional staff, accounting for about 61 percent of current expenditures. The remaining 39 percent goes for transportation, maintenance, etc.

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[1] U.S. Department of Commerce, Bureau of the Census, "Current Population Reports, School Enrollment: October 1969." Series P-20, No. 206, 1970.

Interest includes all funds expended for the use of money. Most of the interest shown here was expended on account of long-term debt that was incurred for constructing buildings.

Expenditures by source of funds

Regular and "other" schools

Although no attempt was made to project amounts of funds from the various sources to be expended by educational institutions, estimates are shown by source for the past 11 years. To do this, estimates for "other" schools were added to the total expenditures shown in table 41 for the appropriate years. The resulting total expenditures for regular and "other" schools were then broken down by source of funds by first adjusting receipts to equate them with expenditures and then assuming a continuation of the 1959-60 through 1967-68 trend in the amount of receipts from each source. Receipts and expenditures were equated mainly by including loans and excluding the receipts used for repayment of loans.

Total expenditures are defined as the expenditure of all money from both loans and grants and exclude only the funds used for reducing debt and transfers that result in duplication. Expenditures from Federal, State, and local sources are defined as institutional expenditures of all grants (but not loans) of funds received from those sources. Expenditures from all other sources include all funds received by the institutions that were not received as grants from Federal, State, and local governments. Loans to institutions of higher education from any source are included under "all other." (It is estimated that in 1969-70, $328 million in Federal loans to institutions of higher education was included in the "all other" category shown here.)

Since the foregoing definitions are designed to show sources of funds through the eyes of educational institutions, the Federal figures shown in the preceding table are different from those shown in appendix B, table B-10, on Federal funds for education. The three main reasons are as follows:

(1) Different items are included. For example, the table on Federal funds in appendix B shows grants and loans to individuals, which would appear in institutional accounts here as receipts from tuition or auxiliary services; or the money may be spent for board and room outside the institution and not be a receipt of the institution from any source.

(2) The same items may be handled differently. For example, the table on Federal funds shows only basic research for institutions of higher education; the institutions include some applied research grants from the Federal Government.

(3) The table on Federal funds generally shows obligated funds; the institutional figures show expenditures.

Total expenditures

Regular institutions (table 40)

Total annual expenditures of regular educational institutions (in 1969-70 dollars) increased from $32.8 billion in 1959-60 to $70.3 billion in 1969-70 and are expected to be $97.4 billion in 1979-80. The expenditure increases are due chiefly to increases in enrollment at all levels of education, especially in high schools and colleges, and the increasing costs of the many items such as school facilities and salaries of teachers that are necessary for providing education. The projected total expenditures are shown in table 40. They are based mainly on the assumptions that the 1959-60 to 1969-70 trend will continue through 1979-80 and that some additional amounts (above trend) will be expended because of the effects of the Elementary and Secondary Education Act of 1965.

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1959-60 to 1970-71[1]

Source of funds, by control and level (1)	1959-60 (2)	1961-62 (3)	1963-64 (4)	1965-66 (5)	1967-68 (6)	1968-69 (7)	1969-70 (8)	1970-71 (9)
	AMOUNT, in billions of current dollars							
All levels:								
Total, public and nonpublic	$24.7	$29.9	$36.1	$45.4	$57.3	$62.0	$70.6	$75.3
Federal	1.7	2.5	3.3	5.1	6.8	7.3	8.0	8.8
State	7.2	8.7	10.6	13.1	16.8	18.5	21.1	22.5
Local	9.7	11.2	12.7	15.0	18.6	20.2	23.6	24.8
All other	6.1	7.5	9.5	12.2	15.1	16.0	17.9	19.2
Total, public	19.7	23.4	28.0	35.3	45.5	49.9	57.3	61.2
Federal	1.2	1.7	2.2	3.7	5.1	5.4	5.9	6.5
State	7.2	8.6	10.5	13.0	16.7	18.4	21.0	22.4
Local	9.7	11.2	12.7	15.0	18.6	20.2	23.6	24.8
All other	1.6	1.9	2.6	3.6	5.1	5.9	6.8	7.5
Total, nonpublic	5.0	6.5	8.1	10.1	11.8	12.1	13.3	14.1
Federal	.5	.8	1.1	1.4	1.7	1.9	2.1	2.3
State	(2)	.1	.1	.1	.1	.1	.1	.1
Local	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
All other	4.5	5.6	6.9	8.6	10.0	10.1	11.1	11.7
Elementary and secondary schools:								
Total, public and nonpublic	18.0	21.4	24.8	30.2	37.4	39.9	45.7	48.1
Federal	.7	.9	1.1	2.2	3.0	2.9	3.0	3.2
State	5.6	6.7	8.0	9.6	12.1	13.1	15.1	16.0
Local	9.5	11.0	12.4	14.6	18.0	19.6	22.8	24.0
All other	2.2	2.8	3.3	3.8	4.3	4.3	4.8	4.9

See footnotes at end of table.

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1959-60 to 1970-71[1] —Continued

Source of funds, by control and level (1)	1959-60 (2)	1961-62 (3)	1963-64 (4)	1965-66 (5)	1967-68 (6)	1968-69 (7)	1969-70 (8)	1970-71 (9)
	AMOUNT in billions of current dollars							
Total, public[3]	$15.9	$18.7	$21.6	$26.5	$33.2	$35.7	$41.0	$43.3
Federal	.7	.9	1.1	2.2	3.0	2.9	3.0	3.2
State	5.6	6.7	8.0	9.6	12.1	13.1	15.1	16.0
Local	9.5	11.0	12.4	14.6	18.0	19.6	22.8	24.0
All other	.1	.1	.1	.1	.1	.1	.1	.1
Total, nonpublic	2.1	2.7	3.2	3.7	4.2	4.2	4.7	4.8
Federal	....	....	....	....	....	....	....	....
State	....	....	....	....	....	....	....	....
Local	....	....	....	....	....	....	....	....
All other	2.1	2.7	3.2	3.7	4.2	4.2	4.7	4.8
Institutions of higher education:								
Total, public and nonpublic	6.7	8.5	11.3	15.2	19.9	22.1	24.9	27.2
Federal	1.0	1.6	2.2	2.9	3.8	4.4	5.0	5.6
State	1.6	2.0	2.6	3.5	4.7	5.4	6.0	6.5
Local	.2	.2	.3	.4	.6	.6	.8	.8
All other	3.9	4.7	6.2	8.4	10.8	11.7	13.1	14.3
Total, public[3]	3.8	4.7	6.4	8.8	12.3	14.2	16.3	17.9
Federal	.5	.8	1.1	1.5	2.1	2.5	2.9	3.3
State	1.6	1.9	2.5	3.4	4.6	5.3	5.9	6.4
Local	.2	.2	.3	.4	.6	.6	.8	.8
All other	1.5	1.8	2.5	3.5	5.0	5.8	6.7	7.4

Total, nonpublic[3]	2.9	3.8	4.9	6.4	7.6	7.9	8.6	9.3
Federal	.5	.8	1.1	1.4	1.7	1.9	2.1	2.3
State	(2)	.1	.1	.1	.1	.1	.1	.1
Local	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
All other	2.4	2.9	3.7	4.9	5.8	5.9	6.4	6.9
	PERCENT							
All levels:								
Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	6.9	8.4	9.1	11.2	11.9	11.8	11.3	11.7
State	29.1	29.1	29.4	28.9	29.3	29.8	29.9	29.9
Local	39.3	37.4	35.2	33.0	32.5	32.6	33.4	32.9
All other	24.7	25.1	26.3	26.9	26.3	25.8	25.4	25.5
Total, public	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	6.1	7.3	7.9	10.5	11.2	10.8	10.3	10.6
State	36.6	36.7	37.5	36.8	36.7	36.9	36.6	36.6
Local	49.2	47.9	45.3	42.5	40.9	40.5	41.2	40.5
All other	8.1	8.1	9.3	10.2	11.2	11.8	11.9	12.3
Total, nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	10.0	12.3	13.6	13.9	14.4	15.7	15.8	16.3
State	(4)	1.5	1.2	1.0	.9	.8	.7	.7
Local	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
All other	90.0	86.2	85.2	85.1	84.7	83.5	83.5	83.0

See footnotes at end of table.

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1959-60 to 1970-71[1] —Continued

Source of funds, by control and level (1)	1959-60 (2)	1961-62 (3)	1963-64 (4)	1965-66 (5)	1967-68 (6)	1968-69 (7)	1969-70 (8)	1970-71 (9)
	PERCENT							
Elementary and secondary schools:								
Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	3.9	4.2	4.4	7.3	8.0	7.3	6.6	6.6
State	31.1	31.3	32.3	31.8	32.4	32.8	33.0	33.3
Local	52.8	51.4	50.0	48.3	48.1	49.1	49.9	49.9
All other	12.2	13.1	13.3	12.6	11.5	10.8	10.5	10.2
Total, public	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	4.6	5.1	5.0	8.0	8.9	8.1	7.3	7.5
State	35.4	35.9	37.2	36.3	36.5	36.7	36.9	37.0
Local	59.6	58.6	57.4	55.2	54.2	54.9	55.6	55.3
All other	.4	.4	.4	.5	.4	.3	.2	.2
Total, nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	....	....	....	....	....	....	....	....
State	....	....	....	....	....	....	....	....
Local	....	....	....	....	....	....	....	....
All other	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Institutions of higher education:								
Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	14.9	18.8	19.5	19.1	19.1	19.9	20.1	20.6
State	23.9	23.5	23.0	23.0	23.6	24.4	24.1	23.9
Local	3.0	2.4	2.6	2.6	3.0	2.7	3.2	2.9
All other	58.2	55.3	54.9	55.3	54.3	53.0	52.6	52.6
Total, public	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	14.9	16.0	16.9	17.6	17.1	17.5	17.8	18.2
State	41.4	41.2	39.7	38.4	37.6	37.0	36.4	35.8
Local	4.6	4.2	4.3	4.1	4.5	4.5	4.5	4.4
All other	39.1	38.6	39.1	39.9	40.8	41.0	41.3	41.6
Total, nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	17.0	20.5	23.1	22.1	22.6	23.4	24.1	24.9
State	1.5	1.5	1.3	1.5	1.2	1.2	1.2	1.2
Local	.2	.2	.2	.1	.3	.3	.3	.3
All other	81.3	77.8	75.4	76.3	75.9	75.1	74.4	73.6

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[1] In addition to regular schools (shown in table) these figures include "other" elementary and secondary schools such as residential schools for exceptional children, Federal schools for Indians, and federally operated elementary and secondary schools on military posts. The annual expenditures of "other" elementary and secondary schools were estimated as follows:

Years	Public	Nonpublic
	Millions	
1959-60	$100	Less than $50 million.
1961-62	200	Less than $50 million.
1963-64 to 1970-71	200	$100 million.

[2] Less than $50 million.

[3] Total expenditures distributed according to the trend of receipts shown in appendix B, table B-9. See text for more complete explanation.

[4] Less than 0.05 percent.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: Data for the table above were based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of State School Systems," 1959-60, 1961-62, 1963-64, 1965-66, and 1967-68; (2) "Statistics of Public Schools," fall 1964, 1965, 1966, 1967, 1968, and 1969; (3) "Financial Statistics of Higher Education," 1959-60, 1961-62, 1963-64, 1965-66, 1966-67, and 1967-68; (4) "Digest of Educational Statistics," 1969, and unpublished data in the U.S. Office of Education.

Regular public elementary and secondary schools (tables 40, 42)

Current expenditures

Annual current expenditures for public elementary and secondary schools (in 1969-70 dollars) increased from $16.2 billion in 1959-60 to $34.5 billion in 1969-70, an increase of 113 percent. They are expected to increase 25 percent to $43.1 billion by 1979-80. These projections include the increased expenditures expected because of the Elementary and Secondary Education Act of 1965.

Increased enrollment together with increased expenditures per pupil have accounted for the increase in current expenditures. Expenditures have been increasing and are expected to continue to increase for practically all of the major items included in current expenditures, such as administration, instruction, operation and maintenance of plant, fixed charges, and other school services and programs. Annual current expenditures per pupil (in 1969-70 dollars) increased from $482 in 1959-60 to $783 in 1969-70 and are expected to increase to $986 by 1979-80. The last two figures include the effects of the Elementary and Secondary Education Act of 1965.

Projected current expenditures for public elementary and secondary schools are shown in table 42. They were projected as follows:

(1) Current expenditures per pupil in average daily attendance (ADA) for the base years 1959-60 to 1969-70 were converted to 1969-70 dollars on the basis of the Consumer Price Index prepared by the Bureau of Labor Statistics, U. S. Department of Labor. Monthly index numbers were averaged on a July-June basis to correspond to the school years.

(2) The current expenditures per pupil for the years 1959-60 to 1964-65 were used in deriving a formula (by least squares) for projecting trend figures for 1965-66 to 1979-80. This formula was $y' = \$463 + \$20(t)$ (t = time in years, t = 1 in 1959-60).

(3) Average daily attendance was calculated for 1970-71 to 1979-80 by assuming that the ratio of average daily attendance to projected fall enrollment in kindergarten through grade 12 will remain constant at 0.926, based on the projection of the trend of the last 11 years.

(4) Total current expenditures (excluding effects of the Elementary and Secondary Education Act of 1965) allocated to public elementary and secondary school pupil costs (1969-70 dollars) were projected for 1965-66 to 1979-80 by multiplying the current expenditures per pupil, as projected in step (2), by the corresponding average daily attendance projected in step (3). These figures exclude expenditures for summer schools, adult education, and community colleges operated by school districts.

(5) Total current expenditures (excluding effects of the Elementary and Secondary Education Act of 1965) for all programs operated by school districts—including summer schools, adult education, and community colleges—were projected for 1965-66 to 1979-80 by assuming that current expenditures for all programs remain constant at the 1967-68 rate of 103.5 percent of current expenditures allocated for public elementary and secondary school pupil costs.

(6) Current expenditures per pupil (including the Elementary and Secondary Education Act of 1965) allocated to public elementary and secondary pupil costs were projected by adding $95 to the figures projected in step (2). (In 1969-70, current expenditures per pupil reported by State departments of education was $95 higher than the trend figure for 1969-70 derived in step (2).)

(7) Total current expenditures allocated to pupil costs (including the effects of the Elementary and Secondary Education Act of 1965) were projected by multiplying the current expenditures per pupil, as projected in step (6), by the corresponding average daily attendance projected in step (3).

(8) Total current expenditures for all programs operated by school districts (including the effects of the Elementary and Secondary Education Act) were projected by multiplying the figures in step (7) by 103.5 percent.

Salaries of instructional staff (tables 43, 29)

A large part of current expenditures for public elementary and secondary schools is for salaries of instructional staff (amounting to 61 percent in 1967-68). Total expenditures for these salaries (in 1969-70 dollars) increased from $9.7 billion in 1959-60 to $20.1 billion in 1969-70, and are expected to be $26.9 billion in 1979-80. These increases are due to larger numbers of instructional staff and to higher average annual salaries. The amounts for 1965-66 to 1979-80 also reflect the larger number of instructional staff expected on account of the Elementary and Secondary Education Act of 1965.

The average annual salary of instructional staff (in 1969-70 dollars) increased from $6,651 in 1959-60 to $8,840 in 1969-70 and is expected to be $11,097 in 1979-80. During the past 10 years, the average annual salary has been increasing about $219 per year in 1969-70 dollars. The projected figure for 1979-80 ($11,097) is based on the assumption that the 1959-60 to 1969-70 trend will continue to 1979-80.

Projected total and average annual salaries of instructional staff in public elementary and secondary schools are shown in table 43. The procedure was as follows:

The average annual salary (y) was projected as a continuation of the 1959-60 to 1969-70 trend: $y' = \$6357 + \$226(t)$; ($t$ = time in years, $t = 1$ in 1959-60).

Total expenditures for salaries of instructional staff were then computed as the product of the average annual salary and the total number of instructional staff. (The total number of instructional staff was taken from table 29.)

Classroom construction and capital outlay (table 44)

Capital outlay (in 1969-70 dollars) by regular public elementary and secondary schools, including the expenditures of State and local school building authorities, was $21.6 billion for the 5-year period 1960-61 to 1964-65, and $24.7 billion for the following 5-year period, 1965-66 to 1969-70. It is expected to be $24.5 billion for 1970-71 to 1974-75 and $24.5 billion for 1975-76 to 1979-80.

Projected expenditures for capital outlay together with projections of classroom construction are shown in table 44. They are not projections of need but are simply projections of the classroom construction and capital outlay expected in the light of the 1959-60 to 1969-70 trend and other factors. The procedure was as follows:

(1) The total number of rooms completed was projected on the basis of the 1960-61 to 1969-70 trend; $y' = 67{,}312 + 269\ (t)$ (t = time in years, $t = 1$ in 1960-61). The basic data and projections are shown in table 44.

(2) Capital outlay was projected by multiplying the number of rooms to be completed by the projected capital outlay per room which was held constant at the level of $70,000 per room (1969-70 dollars).

The basic data and projections are shown in table 44.

It should be noted that not all the capital outlay shown here represents construction. It was estimated that, in 1961-62, 2 percent of capital outlay was for transportation equipment, 15 percent for other equipment, and 83 percent for land and buildings.

We may expect a sharp decrease in the number of rooms to be completed on account of enrollment increases and a sharp increase in the number completed for other reasons. Other reasons include: (1) replacements (abandonments), (2) migration factors (including school district reorganization), and (3) reduction of crowded and unsatisfactory rooms. Data limitations do not permit an exact analysis of these three factors. Since there are some indications that the number of crowded and unsatisfactory rooms did not change substantially during the period of time between the studies of 1962 and 1964-65 (see table, p. 84), it seems safe to assume that almost all of the rooms built during that time were used to take care of migration factors. That the number of crowded and unsatisfactory rooms was not reduced during the 3-year period is indicated in Office of Education studies on school facilities for 1962 and 1964-65.[1] The following information was selected from those two studies:

Item	1962	1964-65
Number of additional public school classrooms needed:		
To eliminate off-site	6,000	14,000
To eliminate nonpermanent	31,000	31,000
To eliminate improvised or makeshift	28,000	31,000
To eliminate rooms in buildings with four or more defects-	NA	158,000
To achieve a pupil-room ratio for all students of:		
27.6 elementary and 26.3 secondary pupils	117,000	------------
27.4 elementary and 27.5 secondary pupils	------------	98,000
25 elementary and 20 secondary pupils	272,000	285,000
U.S. median pupil-room ratio:		
Elementary schools	27.6	27.4
Secondary schools	26.3	27.5

NA–not available.

In 1964-65 the number of additional rooms which would have eliminated the use of off-site, nonpermanent, and improvised or makeshift rooms was 76,000 and the number for replacing rooms in buildings with four or more defects was 158,000. Another 98,000 rooms would have been needed to permit all public school pupils to be in rooms with an average of 27 pupils. If they were to be accommodated in rooms with no more than 25 elementary or 20 secondary pupils, the additional number needed would have been 285,000.

Interest expenditures (table 45)

Annual expenditures (in 1969-70 dollars) for interest by public elementary and secondary schools increased from $630 million in 1959-60 to over $1 billion in 1969-70 and are expected to be $1.7 billion in 1979-80. Projected interest is shown in table 45. The projections are based on the assumption that the 1959-60 to 1969-70 upward trend will continue through 1979-80. Although capital outlay is expected to level off in the next decade, this assumption seems reasonable because interest payments continue 20 years or more after construction, resulting in debt being incurred at a greater rate than it is being eliminated. The trend formula for projecting interest (y) in 1969-70 dollars was as follows: $y' = \$577 + \$55(t)$; ($t$ = time in years, $t = 1$ in 1959-60).

Nonpublic elementary and secondary schools (tables 40, 41, and 26)

Expenditure data for nonpublic elementary and secondary schools comparable to those for public schools are nonexistent. The main reason is that it is extremely difficult to arrive at a universally accepted method for determining the value of donated services for nonpublic schools, even if data on actual expenditures were collected. These donated services make up a substantial part of nonpublic school resources, especially in the elementary and secondary schools operated by religious orders. In 1965-66, over three-fourths of the nearly 200,000 nonpublic school teachers belonged to religious orders of the Roman Catholic Church. Also, it might be argued that many of the remaining nonpublic school teachers, whose salaries generally run lower than those in public schools, really donated part of their services.

Although it is difficult to arrive at national estimates of nonpublic school expenditures that everyone will accept, the substantial contribution of nonpublic elementary and secondary schools cannot be ignored when total expenditures for education are being considered.

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[1] U.S. Department of Health, Education, and Welfare, Office of Education, "National Inventory of School Facilities and Personnel, Spring 1962," by George J. Collins, and "Condition of Public School Plants, 1964-65," by George J. Collins and William L. Stormer.

Therefore, illustrative estimates of nonpublic elementary and secondary school expenditures were developed rather arbitrarily and are shown in table 40. They are based on the assumption that the cost per teacher (including donated facilities and services) in nonpublic schools is the same as in public schools. The formula was as follows: $y = xp$ (x = ratio of nonpublic to public school teachers, and p = public school expenditures). The ratio of nonpublic to public school teachers was slightly over 14 percent during the 1959 to 1969 decade and is expected to be slightly under 11 percent during the 1969 to 1979 decade. The numbers upon which these ratios were computed are shown in table 26.

Some previous Office of Education estimates were based on the assumption that per pupil costs in nonpublic were the same as in public schools. Since the average pupil-teacher ratio is higher in nonpublic than in public schools, the previous estimates were higher than those shown here. Both types of estimates are, in a sense, hypothetical. That is, one showed what it would cost to educate nonpublic elementary and secondary school children if they were enrolled in public schools and if the public school pupil-teacher ratio were maintained; and the other type, shown in tables 40 and 41, shows the cost if the pupil-teacher ratio were maintained at the nonpublic school level.

Institutions of higher education

Current expenditures (tables 40, 46)

Annual current expenditures of institutions of higher education (in 1969-70 dollars) increased from $6.9 billion in 1959-60 to $21.3 billion in 1969-70. They are expected to reach $39.5 billion by 1979-80, or to nearly double during the projected 10-year period. The projected data are based largely upon expected increases in enrollment and upon the trend of increasing costs per student expressed in constant dollars. The result is an expected or projected constant dollar increase of $18.2 billion over the next 10 years compared to a constant dollar increase of $14.4 billion over the past 10 year (see table 40). When expressed in terms of current expenditures per full-time-equivalent student, the data are as follows:

Item	1959-60	1969-70	1979-80
Total current expenditures	$2,485	$3,396	$4,150
Publicly controlled institutions	2,306	2,954	3,524
Nonpublicly controlled institutions	2,746	4,551	6,466

Current expenditures are divided into four functional components: student education, related activities, organized research, and auxiliary enterprises and student aid. "Student education" encompasses general administration, instruction and departmental research, extension and public services, libraries, and operation and maintenance. Expenditures for student education were projected by use of the trend of annual expenditures per full-time-equivalent student over the 10-year base period in conjunction with the projected enrollment of such students (see table 12). When expressed in terms of current expenditures per full-time-equivalent student, the data are as follows:

Item	1959-60	1969-70	1979-80
Total current expenditures for student education	$1,476	$2,025	$2,459
Publicly controlled institutions	1,456	1,896	2,256
Nonpublicly controlled institutions	1,506	2,362	3,208

Current expenditures for "student education," related activities, and organized research are commonly known as current expenditures for educational and general purposes, and these expenditures per full-time-equivalent student are as follows:

Item	1959-60	1969-70	1979-80
Expenditures for educational and general purposes	$2,089	$2,774	$3,310
Publicly controlled institutions	2,002	2,469	2,870
Nonpublicly controlled institutions	2,214	3,571	4,936

The institutions of higher education engage in organized research and related activities and auxiliary enterprises in widely varying degrees. Thus, only the "student education" component expressed as expenditure per full-time-equivalent student can be considered a norm for all institutions. Per student data for the United States for total current expenditures and for educational and general expenditures are presented as general interest items and not as institutional norms.

Related activities, auxiliary enterprises, and student aid expenditures were projected on the basis of their percentage relationship to student education during the base period. These functions are obviously closely related to trends in enrollment, but allowance had to be made for the change during the base period in their percentage relationship to student education. The base period data indicate a trend toward more emphasis on these activities, an exception being auxiliary enterprises in publicly controlled institutions.

Item	1959-60 (percent)	1969-70 (percent)	1979-80 (percent)
Related activities:			
Publicly controlled institutions	9.97	9.52	10.37
Nonpublicly controlled institutions	8.88	8.99	9.82
Auxiliary enterprises:			
Publicly controlled institutions	26.26	24.29	23.97
Nonpublicly controlled institutions	32.26	31.87	34.51
Student aid:			
Publicly controlled institutions	3.19	5.70	7.83
Nonpublicly controlled institutions	8.53	12.02	15.49

The projection of expenditures for organized research, as a component of current expenditures, was done without regard to enrollment or to relationship with expenditures for student education. In view of the extremely variable nature of this component's relation to industry and education, we have projected on the basis of the constant dollar trend of expenditures for organized research during the base period. This projection may well be quite conservative, especially for the publicly controlled institutions, which undoubtedly have the potential to engage in organized research to a far greater degree than performance over the past 10 years would indicate (see table 46).

Capital outlay (tables 40, 48)

Annual capital outlay of institutions of higher education (in 1969-70 dollars) increased from $2.0 billion during 1959-60 to an estimated $3.6 billion in 1969-70 and is expected to fall back to $2.7 billion during 1979-80. Capital outlay over the entire 10-year base period of 1959-60 to 1969-70 amounted to an estimated total of $37.1 billion (in 1969-70 dollars) and is expected to reach a total of $33.6 billion (in 1969-70 dollars) over the 10-year projected period of 1970-71 to 1979-80. The decline in annual projected capital outlay, from $3.5 billion in 1970-71 to $2.7 billion in 1979-80 can be attributed to declining numbers of additional students projected for these years.

Base period estimates of capital outlay were made by utilizing reported book value of plant at the beginning and end of each biennial reporting year and converting to 1969-70 dollars. An amount equal to 1 percent of the value of plant was added each year as a conservative estimate of replacement and rehabilitation. For the projected 10-year period, projections of capital outlay and additional numbers of students were equated on the assumption that capital outlay per additional student would remain constant at the level attained at the close of the base period.

The historical data showed clearly that capital outlay could not be related to increased enrollment on an annual basis. The shortest reasonably reliable period of time proved to be 5 years. However, an annual figure could be interpolated by utilizing a moving average of enrollment increases, although the result was considerably less reliable than that obtained for a 5-year total. We would emphasize, then, that the annual capital outlay shown in tables 40 and 48 be regarded as interpolations and that the 1969-70 constant dollar aspect of the projections be kept in mind.

Expenditures for interest (tables 40, 46)

Data on expenditures for interest by institutions of higher education are incomplete and cannot be shown as a separate item. The major portion of expenditures for interest is estimated to be included with the current expenditures shown in tables 40 and 46.

Table 40.—Expenditures (1969-70 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1959-60 to 1979-80

[In billions of 1969-70 dollars]

Year and control	Total (all levels)	Elementary and secondary schools[1] (Nonpublic school expenditures are estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1959-60:								
Total	$32.8	$23.9	$18.3	$4.9	$0.7	$8.9	$6.9	$2.0
Public	26.1	21.1	16.2	4.3	.6	5.0	3.8	1.2
Nonpublic	6.7	2.8	2.1	.6	.1	3.9	3.1	.8
1960-61:								
Total	35.8	25.6	19.9	4.9	.8	10.2	7.6	2.6
Public	28.1	22.5	17.5	4.3	.7	5.6	4.2	1.4
Nonpublic	7.7	3.1	2.4	.6	.1	4.6	3.4	1.2
1961-62:								
Total	38.5	27.3	21.6	4.9	.8	11.2	8.7	2.5
Public	30.2	23.9	18.9	4.3	.7	6.3	4.8	1.5
Nonpublic	8.3	3.4	2.7	.6	.1	4.9	3.9	1.0
1962-63:								
Total	41.5	28.4	23.1	4.4	.9	13.1	9.6	3.5
Public	32.2	24.8	20.2	3.8	.8	7.4	5.2	2.2
Nonpublic	9.3	3.6	2.9	.6	.1	5.7	4.4	1.3
1963-64:								
Total	45.0	30.9	25.0	4.9	1.0	14.1	10.7	3.4
Public	35.0	27.0	21.8	4.3	.9	8.0	5.9	2.1
Nonpublic	10.0	3.9	3.2	.6	.1	6.1	4.8	1.3
1964-65:								
Total	49.2	33.3	26.7	5.6	1.0	15.9	12.2	3.7
Public	38.1	29.2	23.4	4.9	.9	8.9	6.8	2.1
Nonpublic	11.1	4.1	3.3	.7	.1	7.0	5.4	1.6
1965-66:[8]								
Total	54.1	35.8	29.4	5.4	1.0	18.3	14.1	4.2
Public	42.1	31.5	25.8	4.8	.9	10.6	7.9	2.7
Nonpublic	12.0	4.3	3.6	.6	.1	7.7	6.2	1.5
1966-67:[8]								
Total	57.9	37.5	30.7	5.6	1.2	20.4	15.6	4.8
Public	45.1	33.0	27.0	4.9	1.1	12.1	9.0	3.1
Nonpublic	12.8	4.5	3.7	.7	.1	8.3	6.6	1.7
1967-68:[8]								
Total	63.7	41.3	34.6	5.5	1.2	22.4	17.5	4.9
Public	50.6	36.8	30.8	4.9	1.1	13.8	10.6	3.2
Nonpublic	13.1	4.5	3.8	.6	.1	8.6	6.9	1.7

Table 40.—Expenditures (1969-70 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1959-60 to 1979-80—Continued

[In billions of 1969-70 dollars]

Year and control	Total (all levels)	Elementary and secondary schools[1] (Nonpublic school expenditures are estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1968-69:[8]								
Total	$65.6	$42.1	$35.3	$5.6	$1.2	$23.5	$19.6	$3.9
Public	52.8	37.7	31.6	5.0	1.1	15.1	12.2	2.9
Nonpublic	12.8	4.4	3.7	.6	.1	8.4	7.4	1.0
1969-70:[8]								
Total	70.3	45.4	38.4	5.7	1.3	24.9	21.3	3.6
Public	57.1	40.8	34.5	5.1	1.2	16.3	13.4	2.9
Nonpublic	13.2	4.6	3.9	.6	.1	8.6	7.9	.7
	PROJECTED							
1970-71:								
Total	72.2	46.0	39.3	5.4	1.3	26.2	22.7	3.5
Public	58.7	41.5	35.4	4.9	1.2	17.2	14.4	2.8
Nonpublic	13.5	4.5	3.9	.5	.1	9.0	8.3	.7
1971-72:								
Total	75.1	47.1	40.3	5.4	1.4	28.0	24.5	3.5
Public	60.9	42.6	36.4	4.9	1.3	18.3	15.7	2.6
Nonpublic	14.2	4.5	3.9	.5	.1	9.7	8.8	.9
1972-73:								
Total	78.0	48.1	41.3	5.4	1.4	29.9	26.2	3.7
Public	63.0	43.5	37.3	4.9	1.3	19.5	16.9	2.6
Nonpublic	15.0	4.6	4.0	.5	.1	10.4	9.3	1.1
1973-74:								
Total	81.1	49.1	42.1	5.4	1.6	32.0	28.2	3.8
Public	65.3	44.3	38.0	4.9	1.4	21.0	18.3	2.7
Nonpublic	15.8	4.8	4.1	.5	.2	11.0	9.9	1.1
1974-75:								
Total	84.1	50.1	43.0	5.4	1.7	34.0	30.2	3.8
Public	67.6	45.2	38.8	4.9	1.5	22.4	19.7	2.7
Nonpublic	16.5	4.9	4.2	.5	.2	11.6	10.5	1.1
1975-76:								
Total	86.6	50.9	43.8	5.4	1.7	35.7	32.2	3.5
Public	69.6	45.9	39.5	4.9	1.5	23.7	21.1	2.6
Nonpublic	17.0	5.0	4.3	.5	.2	12.0	11.1	.9
1976-77:								
Total	89.2	51.9	44.7	5.4	1.8	37.3	34.1	3.2
Public	71.7	46.8	40.3	4.9	1.6	24.9	22.4	2.5
Nonpublic	17.5	5.1	4.4	.5	.2	12.4	11.7	.7

Table 40.—Expenditures (1969-70 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1959-60 to 1979-80—Continued

[In billions of 1969-70 dollars]

Year and control	Total (all levels)	Elementary and secondary schools[1] (Nonpublic school expenditures are estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1977-78:								
Total	$91.7	$52.8	$45.6	$5.4	$1.8	$38.9	$35.9	$3.0
Public	73.7	47.6	41.1	4.9	1.6	26.1	23.7	2.4
Nonpublic	18.0	5.2	4.5	.5	.2	12.8	12.2	.6
1978-79:								
Total	94.5	54.0	46.7	5.4	1.9	40.5	37.7	2.8
Public	76.0	48.7	42.1	4.9	1.7	27.3	25.0	2.3
Nonpublic	18.5	5.3	4.6	.5	.2	13.2	12.7	.5
1979-80:								
Total	97.4	55.2	47.9	5.4	1.9	42.2	39.5	2.7
Public	78.4	49.7	43.1	4.9	1.7	28.7	26.4	2.3
Nonpublic	19.0	5.5	4.8	.5	.2	13.5	13.1	.4

[1] Excludes expenditures for residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and schools on Federal installations. See text table on expenditures by source of funds for data on these schools. All nonpublic elementary and secondary school expenditures shown here are estimated on the basis of expenditures per teacher in public elementary and secondary schools.

[2] Includes expenditures for subcollegiate departments of institutions of higher education, estimated at $85 million in 1969-70. Includes expenditures for interest from current funds and excludes interest paid from plant funds. (An estimated $250 million was expended for total interest in 1969-70.)

[3] Includes current expenditures of public elementary and secondary school systems for community services, summer schools, community colleges, and adult education. Interest is included in the estimated current expenditures of nonpublic schools.

[4] Includes capital outlay of State and local school building authorities.

[5] Interest for nonpublic schools is based on interest for public schools.

[6] Includes expenditures for interest from current funds. Excludes expenditures from current funds for capital outlay.

[7] The estimated annual capital outlay data shown here include estimated expenditures for replacement and rehabilitation.

[8] Includes effect of Elementary and Secondary Education Act of 1965.

NOTE: Data are for 50 States and the District of Columbia.

SOURCES: Data are a summary of tables 42 through 48, each of which indicates source of data.

Table 41.—Expenditures (current dollars) of regular educational institutions, by instructional level and institutional control: United States, 1959-60 to 1971-72

[In billions of current dollars]

Year and control	Total (all levels)	Elementary and secondary schools[1] (Nonpublic school expenditures are estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1959-60:								
Total	$24.6	$17.9	$14.1	$3.2	$0.6	$6.7	$5.4	$1.3
Public	19.6	15.8	12.5	2.8	.5	3.8	3.0	.8
Nonpublic	5.0	2.1	1.6	.4	.1	2.9	2.4	.5
1960-61:								
Total	27.0	19.3	15.4	3.3	.6	7.7	6.0	1.7
Public	21.2	17.0	13.6	2.9	.5	4.2	3.3	.9
Nonpublic	5.8	2.3	1.8	.4	.1	3.5	2.7	.8
1961-62:								
Total	29.6	21.1	17.0	3.4	.7	8.5	6.8	1.7
Public	23.2	18.5	14.9	3.0	.6	4.7	3.7	1.0
Nonpublic	6.4	2.6	2.1	.4	.1	3.8	3.1	.7
1962-63:								
Total	32.5	22.3	18.5	3.1	.7	10.2	7.7	2.5
Public	25.3	19.5	16.2	2.7	.6	5.8	4.2	1.6
Nonpublic	7.2	2.8	2.3	.4	.1	4.4	3.5	.9
1963-64:								
Total	35.8	24.5	20.2	3.5	.8	11.3	8.8	2.5
Public	27.8	21.4	17.6	3.1	.7	6.4	4.9	1.5
Nonpublic	8.0	3.1	2.6	.4	.1	4.9	3.9	1.0
1964-65:								
Total	39.8	26.9	21.8	4.2	.9	12.9	10.1	2.8
Public	30.8	23.6	19.1	3.7	.8	7.2	5.6	1.6
Nonpublic	9.0	3.3	2.7	.5	.1	5.7	4.5	1.2
1965-66:[8]								
Total	45.1	29.9	24.7	4.3	.9	15.2	11.9	3.3
Public	35.1	26.3	21.7	3.8	.8	8.8	6.7	2.1
Nonpublic	10.0	3.6	3.0	.5	.1	6.4	5.2	1.2
1966-67:[8]								
Total	49.6	32.1	26.6	4.5	1.0	17.5	13.6	3.9
Public	38.7	28.3	23.4	4.0	.9	10.4	7.9	2.5
Nonpublic	10.9	3.8	3.2	.5	.1	7.1	5.7	1.4
1967-68:[8]								
Total	57.0	37.1	31.2	4.8	1.1	19.9	15.8	4.1
Public	45.3	33.0	27.7	4.3	1.0	12.3	9.6	2.7
Nonpublic	11.7	4.1	3.5	.5	.1	7.6	6.2	1.4

Table 41.—Expenditures (current dollars) of regular educational institutions, by instructional level and institutional control: United States, 1959-60 to 1971-72—Continued

[In billions of current dollars]

Year and control	Total (all levels)	Elementary and secondary schools[1] (Nonpublic school expenditures are estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1968-69:[8]								
Total	$61.7	$39.6	$33.3	$5.2	$1.1	$22.1	$18.4	$3.7
Public	49.7	35.5	29.8	4.7	1.0	14.2	11.5	2.7
Nonpublic	12.0	4.1	3.5	.5	.1	7.9	6.9	1.0
1969-70:[8]								
Total	70.3	45.4	38.4	5.7	1.3	24.9	21.3	3.6
Public	57.1	40.8	34.5	5.1	1.2	16.3	13.4	2.9
Nonpublic	13.2	4.6	3.9	.6	.1	8.6	7.9	.7
				PROJECTED				
1970-71:								
Total	75.0	47.8	40.7	5.8	1.3	27.2	23.5	3.7
Public	61.0	43.1	36.7	5.2	1.2	17.9	14.9	3.0
Nonpublic	14.0	4.7	4.0	.6	.1	9.3	8.6	.7
1971-72:								
Total	80.9	50.9	43.3	6.0	1.6	30.0	26.1	3.9
Public	65.5	45.9	39.1	5.4	1.4	19.6	16.7	2.9
Nonpublic	15.4	5.0	4.2	.6	.2	10.4	9.4	1.0

[1] Excludes expenditures for residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and schools on Federal installations. See text table on expenditures by source of funds for data on these schools. All nonpublic elementary and secondary school expenditures shown here are estimated on the basis of expenditures per teacher in public elementary and secondary schools.

[2] Includes expenditures for subcollegiate departments of institutions of higher education, estimated at $85 million in 1969-70. Includes expenditures for interest from current funds and excludes interest paid from plant funds. (An estimated $250 million was expended for total interest in 1969-70.)

[3] Includes current expenditures of public elementary and secondary school systems for community services, summer schools, community colleges, and adult education. Interest is included in the estimated current expenditures of nonpublic schools.

[4] Includes capital outlay of State and local school building authorities.

[5] Interest for nonpublic schools is based on interest for public schools.

[6] Includes expenditures for interest from current funds. Excludes expenditures from current funds for capital outlay.

[7] The estimated annual capital outlay data shown here include estimated expenditures for replacement and rehabilitation.

[8] Includes effect of Elementary and Secondary Education Act of 1965.

NOTE: Data are for 50 States and the District of Columbia.

SOURCES: Data are a summary of tables 42 through 48, each of which indicates source of data.

Table 42.—Current expenditures of public school systems: United States, 1959-60 to 1979-80

Year	Average daily attendance (in thousands)	Allocated to pupil costs[1]				All programs[2]	
		Per pupil in average daily attendance		Total (in billions)		Total (in billions)	
		Current dollars	1969-70 dollars	Current dollars	1969-70 dollars	Current dollars	1969-70 dollars
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60	32,477	$375.14	$482	$12.2	$15.7	$12.5	$16.2
[3] 1960-61	33,524	396.50	503	13.3	16.9	13.6	17.5
1961-62	34,682	418.50	526	14.7	18.2	14.9	18.9
[3] 1962-63	35,882	439.00	545	15.8	19.6	16.2	20.2
1963-64	37,405	460.24	563	17.2	21.1	17.6	21.8
[4] 1964-65	38,600	484.00	585	18.6	22.6	19.1	23.4
1965-66	39,154	537.35	636	21.0	24.9	21.7	25.8
[4] 1966-67	40,000	569.00	653	22.6	26.1	23.4	27.0
1967-68	40,828	659.00	732	26.9	29.9	27.7	30.8
[4] 1968-69	41,157	696.00	737	28.6	30.3	29.8	31.6
[4] 1969-70	42,283	783.00	783	33.1	33.1	34.5	34.5
A. INCLUDES THE EFFECT OF THE ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965							
	ACTUAL						
1965-66	39,154	537.35	636	21.0	24.9	21.7	25.8
[4] 1966-67	40,000	569.00	653	22.6	26.1	23.4	27.0
1967-68	40,828	659.00	732	26.9	29.9	27.7	30.8
[4] 1968-69	41,157	696.00	737	28.6	30.3	29.8	31.6
[4] 1969-70	42,283	783.00	783	33.1	33.1	34.5	34.5
	PROJECTED[5] (Based on assumption that current expenditure per pupil will be $95 higher than trend)						
1970-71	42,600	[6] $832.00	$802	[6] $35.4	$34.2	[6] $36.7	$35.4
1971-72	42,700	[6] 884.00	823	[6] 37.7	35.1	[6] 39.1	36.4
1972-73	42,700	......	843	....	36.0	....	37.3
1973-74	42,500	......	864	....	36.7	....	38.0
1974-75	42,400	......	884	....	37.5	....	38.8
1975-76	42,200	......	904	....	38.1	....	39.5
1976-77	42,100	......	925	....	38.9	....	40.3
1977-78	42,000	......	945	....	39.7	....	41.1
1978-79	42,100	......	966	....	40.7	....	42.1
1979-80	42,200	......	986	....	41.6	....	43.1
B. EXCLUDES THE EFFECT OF THE ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965							
	ESTIMATED[7]						
1965-66	39,154	$511	$605	$20.0	$23.7	$20.7	$24.5
1966-67	40,000	546	626	21.8	25.0	22.6	25.9
1967-68	40,828	582	646	23.8	26.4	24.6	27.3
1968-69	41,157	630	667	25.9	27.5	26.8	28.4
1969-70	42,283	687	687	29.0	29.0	30.1	30.1

See footnotes at end of table.

Table 42.—Current expenditures of public school systems: United States, 1959-60 to 1979-80—Continued

Year	Average daily attendance (in thousands)	Allocated to pupil costs[1]				All programs[2]	
		Per pupil in average daily attendance		Total (in billions)		Total (in billions)	
		Current dollars	1969-70 dollars	Current dollars	1969-70 dollars	Current dollars	1969-70 dollars
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		PROJECTED[8] (Based on continuation of 1959-60 to 1964-65 trend in current expenditure per pupil)					
1970-71	42,600	[6]$733	$707	[6]$31.2	$30.1	[6]$32.3	$31.2
1971-72	42,700	[6]782	728	[6]33.4	31.1	[6]34.6	32.2
1972-73	42,700	....	748	....	31.9	....	33.1
1973-74	42,500	....	769	....	32.7	....	33.8
1974-75	42,400	....	789	....	33.5	....	34.6
1975-76	42,200	....	809	....	34.1	....	35.3
1976-77	42,100	....	830	....	34.9	....	36.2
1977-78	42,000	....	850	....	35.7	....	36.9
1978-79	42,100	....	871	....	36.7	....	38.0
1979-80	42,200	....	891	....	37.6	....	38.9

[1] Includes only the current expenditures for public day schools allocated to pupil costs, and excludes the other expenditures shown in footnote 2.

[2] Includes current expenditures for summer schools, adult education, and community colleges operated by school districts, in addition to expenditures allocable to pupil costs.

[3] Estimated on the basis of actual enrollment and interpolated expenditures per pupil.

[4] Derived from estimates furnished by States.

[5] The projections of current expenditures of public school systems including the effect of the Elementary and Secondary Education Act of 1965 are based on the assumptions that: (1) the ratio of average daily attendance to enrollment in grades K-12 of public schools (table 3) will remain constant at the level of 0.926, the average for the 6 years 1963-64 through 1968-69; (2) current expenditures allocated to costs per pupil in average daily attendance will follow the 1959-60 to 1964-65 trend; (3) the ratio of current expenditures for all programs to current expenditures allocated to pupil costs will remain constant at the 1967-68 level of 1.035; and (4) an increase in expenditures of $95 per pupil will be added to the trend expenditures outlined above as a result of the Elementary and Secondary Education Act of 1965.

[6] Based on the assumption that the Consumer Price Index will follow the 1965-66 to 1969-70 trend through 1971-72.

[7] Estimated, using the 1959-60 to 1964-65 trend.

[8] The projections of current expenditures of public school systems excluding the effect of the Elementary and Secondary Education Act of 1965 are based on the first three assumptions outlined in footnote 5 above.

For methodological details, see appendix A, table A-4, and discussion in text.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: Data are based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of State School Systems" circulars (1959-60 through 1967-68); and (2) "Statistics of Public Schools," fall 1964 through 1969. Current expenditures were converted to 1969-70 dollars on the basis of the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. For method of converting, see appendix B, table B-12.

The expenditures shown in this table include current expenditures for administration for State Boards of Education, and intermediate administrative units.

Table 43.—Current expenditures for salaries of instructional staff in regular public elementary and secondary schools: United States, 1959-60 to 1979-80

Year	Number of instructional staff[1] (in thousands)	Salaries of instructional staff[2]			
		Average annual salary		Total (in billions)	
		Current dollars	1969-70 dollars	Current dollars	1969-70 dollars
(1)	(2)	(3)	(4)	(5)	(6)
1959-60	1,463	$5,174	$6,651	$7.6	$9.7
[3] 1960-61	1,526	5,440	6,903	8.3	10.5
1961-62	1,591	5,700	7,160	9.1	11.4
[3] 1962-63	1,647	5,930	7,360	9.8	12.1
1963-64	1,728	6,240	7,638	10.8	13.2
[4] 1964-65	1,811	6,400	7,734	11.6	14.0
1965-66	1,885	6,935	8,203	13.1	15.5
[4] 1966-67	1,988	7,110	8,157	14.1	16.2
1967-68	2,077	7,630	8,472	17.6	18.2
[4] 1968-69	2,174	8,200	8,686	17.8	18.9
[4] 1969-70	2,270	8,840	8,840	20.1	20.1
	PROJECTED[5]				
1970-71	2,316	[6] 9,400	9,066	21.8	21.0
1971-72	2,342	[6] 9,979	9,291	23.4	21.8
1972-73	2,341	......	9,517	....	22.3
1973-74	2,373	......	9,743	....	23.1
1974-75	2,380	......	9,968	....	23.7
1975-76	2,387	......	10,194	....	24.3
1976-77	2,394	......	10,420	....	24.9
1977-78	2,405	......	10,645	....	25.6
1978-79	2,414	......	10,871	....	26.2
1979-80	2,421	......	11,097	....	26.9

[1] Data on number of instructional staff were taken from table 30.

[2] The average annual salaries of instructional staff are about 4 percent higher than the salaries of class room teachers.

[3] Estimated on the basis of the actual number of instructional staff and interpolated expenditures per staff member for salaries.

[4] Estimates of salaries furnished by State education departments.

[5] The projections of current expenditures for salaries of instructional staff in public elementary and secondary schools are based on the following assumptions: (1) Average annual salaries will follow the 1959-60 to 1969-70 trend; (2) the ratio of instructional staff to classroom teachers in regular public schools will follow the 1959-60 through 1969-70 trend; and (3) funds provided by the Elementary and Secondary Education Act of 1965 will increase the number of instructional staff over the number expected on the basis of trend alone by approximately 180,000 each year (see tables 26 and 30).

[6] Based on the assumption that the Comsumer Price Index will follow the 1964-65 to 1969-70 trend through 1971-72.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: Data are based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education publications: "Statistics of State School Systems" circulars (1959-60 through 1967-68) and "Statistics of Public Schools," fall 1964 through 1969.

Conversion to 1969-70 dollars was based on the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. For method of converting, see appendix B, table B-8.

Table 44.—Construction of public elementary and secondary school classrooms and capital outlay: United States, 1959-60 to 1979-80

[Capital outlay includes expenditures of public school building authorities]

Year	Rooms completed	Fiscal year bond sales in millions of current dollars	School year capital outlay[1]				
			Current dollars			1969-70 dollars	
			Percent of bond sales	Total in millions	Per room	Total in millions	Per room
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60	69,400	$2,198	128	$2,823	$40,700	$4,300	$61,700
[2] 1960-61	72,157	2,357	122	2,900	40,200	4,300	59,600
1961-62	71,987	2,568	116	2,987	41,500	4,300	60,100
[3] 1962-63	65,300	2,274	119	2,700	41,300	3,800	58,200
1963-64	69,300	2,570	122	3,135	45,200	4,300	61,900
[4] 1964-65	65,200	2,823	131	3,700	56,700	4,900	75,700
60-61 to 64-65	343,944	12,592	125	15,422	44,800	21,600	62,800
1965-66	72,600	2,883	130	3,755	51,700	4,800	66,600
[4] 1966-67	71,000	3,254	123	4,000	56,300	4,900	68,800
1967-68	75,400	2,917	146	4,256	56,400	4,900	65,400
[4] 1968-69	69,700	2,904	160	4,654	66,800	5,000	71,600
1969-70	70,000	2,813	181	5,100	72,900	5,100	72,900
65-66 to 69-70	358,700	14,771	147	21,765	60,700	24,700	68,900
	PROJECTED[5]						
1970-71	70,000	......	....	[6] 5,200	......	4,900	70,000
1971-72	70,000	......	....	[6] 5,400	......	4,900	70,000
1972-73	70,000	......	....	......	......	4,900	70,000
1973-74	70,000	......	....	......	......	4,900	70,000
1974-75	70,000	......	....	......	......	4,900	70,000
70-71 to 74-75	350,000	......	....	......	......	24,500	70,000
1975-76	70,000	......	....	......	......	4,900	70,000
1976-77	70,000	......	....	......	......	4,900	70,000
1977-78	70,000	......	....	......	......	4,900	70,000
1978-79	70,000	......	....	......	......	4,900	70,000
1979-80	70,000	......	....	......	......	4,900	70,000
75-76 to 79-80	350,000	......	....	......	......	24,500	70,000

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[1] In 1961-62, 2 percent of capital outlay was estimated to be used for transportation equipment, 15 percent for other equipment, and 83 percent for land and buildings.

[2] Capital outlay was estimated at 122 percent of bond sales, the average for 1959-60 and 1961-62.

[3] Capital outlay was estimated at 119 percent of bond sales, the average for 1961-62 and 1963-64.

[4] Capital outlay was estimated by State departments of education.

[5] Projections of construction of public elementary and secondary school classrooms and of capital outlay are based on the assumptions that: (1) The total number of rooms constructed will remain constant at 70,000 rooms per year, projected on the basis of the 1960-61 to 1969-70 trend; and (2) the capital outlay per room will remain constant at $70,000 per room.

[6] Based on the assumption that the Construction Cost Index will follow the 1964-65 to 1969-70 trend through 1971-72.

For further methodological details, see appendix A, table A-4.

NOTE: Data are for 50 States and the District of Columbia for all years.

Table 45.—Expenditures for interest by public elementary and secondary school systems: United States, 1959-60 to 1979-80

[In millions]

Year (1)	Total interest including payments to schoolhousing authorities or similar agencies: Current dollars (2)	1969-70 dollars (3)
1959-60	$490	$630
[1] 1960-61	539	684
1961-62	588	739
[1] 1962-63	644	799
1963-64	701	858
[2] 1964-65	761	920
1965-66	792	937
[2] 1966-67	949	1,089
1967-68	978	1,086
[2] 1968-69	1,015	1,075
[2] 1969-70	1,180	1,180
	PROJECTED[3]	
1970-71	[4] 1,200	1,200
1971-72	[4] 1,400	1,300
1972-73	......	1,300
1973-74	......	1,400
1974-75	......	1,500
1975-76	......	1,500
1976-77	......	1,600
1977-78	......	1,600
1978-79	......	1,700
1979-80	......	1,700

[1] Interpolated.

[2] Estimates furnished by State education departments.

[3] Projections of expenditures for interest are based on the assumption that these expenditures will follow the 1959-60 to 1969-70 trend.

[4] Based on the assumption that the Comsumer Price Index will follow the 1964-65 to 1969-70 trend through 1971-72.

For methodological details, see appendix A, table A-4.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: Data are based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of State School Systems," 1959-60 to 1967-68; and (2) "Statistics of Public Schools," fall 1964 through fall 1969. Conversion to 1969-70 dollars was based on the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor.

For method of converting, see appendix B, table B-8.

Table 44.—Continued

SOURCES: Data are based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of State School Systems," 1959-60 to 1967-68; and (2) "Statistics of Public Schools," fall 1964 through fall 1969. Conversion to 1969-70 dollars was based on the Construction Cost Index prepared by the American Appraisal Company. For method of converting, see appendix B table B-8.

Table 46.—Expenditures from current funds and total current expenditures (1969-70 dollars) by institutions of higher education: United States, 1959-60 to 1979-80

[In billions of 1969-70 dollars]

Year and control	Expenditures for educational and general purposes: Total (sum of columns 3, 4, and 5)	Student education[1]	Organized research	Related activities[2]	Expenditures for auxiliary enterprises and student aid[3]	Total expenditures from current funds (sum of columns 2 and 6)	Capital outlay from current funds only	Total current expenditures[4] (column 7 less column 8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1959-60:								
Total	$5.8	$4.1	$1.3	$0.4	$1.4	$7.2	$0.3	$6.9
Public	3.3	2.4	.7	.2	.7	4.0	.2	3.8
Nonpublic . .	2.5	1.7	.6	.2	.7	3.2	.1	3.1
1960-61:[5]								
Total	6.5	4.5	1.6	.4	1.5	8.0	.4	7.6
Public	3.6	2.6	.8	.2	.8	4.4	.2	4.2
Nonpublic . .	2.9	1.9	.8	.2	.7	3.6	.2	3.4
1961-62:								
Total	7.3	5.0	1.8	.5	1.8	9.1	.4	8.7
Public	4.1	2.9	.9	.3	.9	5.0	.2	4.8
Nonpublic . .	3.2	2.1	.9	.2	.9	4.1	.2	3.9
1962-63:[5]								
Total	8.1	5.5	2.1	.5	2.0	10.1	.5	9.6
Public	4.5	3.2	1.0	.3	1.0	5.5	.3	5.2
Nonpublic . .	3.6	2.3	1.1	.2	1.0	4.6	.2	4.4
1963-64:								
Total	9.1	6.1	2.4	.6	2.1	11.2	.5	10.7
Public	5.1	3.6	1.1	.4	1.1	6.2	.3	5.9
Nonpublic . .	4.0	2.5	1.3	.2	1.0	5.0	.2	4.8
1964-65:[5]								
Total	10.2	7.0	2.6	.6	2.5	12.7	.5	12.2
Public	5.8	4.2	1.2	.4	1.3	7.1	.3	6.8
Nonpublic . .	4.4	2.8	1.4	.2	1.2	5.6	.2	5.4
1965-66:								
Total	11.7	8.0	2.9	.8	3.0	14.7	.6	14.1
Public	6.8	4.9	1.4	.5	1.5	8.3	.4	7.9
Nonpublic . .	4.9	3.1	1.5	.3	1.5	6.4	.2	6.2
1966-67:								
Total	13.0	9.2	2.9	.9	3.3	16.3	.7	15.6
Public	7.7	5.7	1.4	.6	1.8	9.5	.5	9.0
Nonpublic . .	5.3	3.5	1.5	.3	1.5	6.8	.2	6.6
1967-68:								
Total	14.6	10.7	3.0	.9	3.6	18.2	.7	17.5
Public	9.1	6.9	1.6	.6	2.0	11.1	.5	10.6
Nonpublic . .	5.5	3.8	1.4	.3	1.6	7.1	.2	6.9

See footnotes at end of table.

Table 46.—Expenditures from current funds and total current expenditures (1969-70 dollars) by institutions of higher education: United States, 1959-60 to 1979-80—Continued

[In billions of 1969-70 dollars]

Year and control	Expenditures for educational and general purposes				Expenditures for auxiliary enterprises and student aid[3]	Total expenditures from current funds (sum of columns 2 and 6)	Capital outlay from current funds only	Total current expenditures[4] (column 7 less column 8)
	Total (sum of columns 3, 4, and 5)	Student education[1]	Organized research	Related activities[2]				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1968-69:[6]								
Total	$16.2	$11.8	$3.3	$1.1	$4.1	$20.3	$.7	$19.6
Public	10.3	7.9	1.7	.7	2.4	12.7	.5	12.2
Nonpublic . .	5.9	3.9	1.6	.4	1.7	7.6	.2	7.4
1969-70:[6]								
Total	17.4	12.7	3.5	1.2	4.4	21.8	.5	21.3
Public	11.2	8.6	1.8	.8	2.6	13.8	.4	13.4
Nonpublic . .	6.2	4.1	1.7	.4	1.8	8.0	.1	7.9
	PROJECTED[7]							
1970-71:								
Total	18.5	13.5	3.7	1.3	4.7	23.2	.5	22.7
Public	12.0	9.2	1.9	.9	2.8	14.8	.4	14.4
Nonpublic . .	6.5	4.3	1.8	.4	1.9	8.4	.1	8.3
1971-72:								
Total	19.9	14.6	3.9	1.4	5.0	24.9	.4	24.5
Public	13.0	10.0	2.0	1.0	3.0	16.0	.3	15.7
Nonpublic . .	6.9	4.6	1.9	.4	2.0	8.9	.1	8.8
1972-73:								
Total	21.3	15.6	4.2	1.5	5.5	26.8	.6	26.2
Public	14.0	10.8	2.1	1.1	3.3	17.3	.4	16.9
Nonpublic . .	7.3	4.8	2.1	.4	2.2	9.5	.2	9.3
1973-74:								
Total	22.8	16.8	4.3	1.7	6.0	28.8	.6	28.2
Public	15.1	11.7	2.2	1.2	3.6	18.7	.4	18.3
Nonpublic . .	7.7	5.1	2.1	.5	2.4	10.1	.2	9.9
1974-75:								
Total	24.4	18.0	4.6	1.8	6.4	30.8	.6	30.2
Public	16.2	12.6	2.3	1.3	3.9	20.1	.4	19.7
Nonpublic . .	8.2	5.4	2.3	.5	2.5	10.7	.2	10.5
1975-76:								
Total	25.7	19.1	4.8	1.8	7.0	32.7	.5	32.2
Public	17.2	13.5	2.4	1.3	4.3	21.5	.4	21.1
Nonpublic . .	8.5	5.6	2.4	.5	2.7	11.2	.1	11.1
1976-77:								
Total	27.3	20.1	5.1	2.1	7.3	34.6	.5	34.1
Public	18.3	14.3	2.5	1.5	4.5	22.8	.4	22.4
Nonpublic . .	9.0	5.8	2.6	.6	2.8	11.8	.1	11.7

See footnotes at end of table.

Table 46.—Expenditures from current funds and total current expenditures (1969-70 dollars) by institutions of higher education: United States, 1959-70 to 1979-80—Continued

[In billions of 1969-70 dollars]

Year and control	Expenditures for educational and general purposes				Expenditures for auxiliary enterprises and student aid[3]	Total expenditures from current funds (sum of columns 2 and 6)	Capital outlay from current funds only	Total current expenditures[4] (column 7 less column 8)
	Total (sum of columns 3, 4, and 5)	Student education[1]	Organized research	Related activities[2]				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1977-78:								
Total	$28.6	$21.2	$5.3	$2.1	$7.8	$36.4	$.5	$35.9
Public	19.3	15.2	2.6	1.5	4.8	24.1	.4	23.7
Nonpublic	9.3	6.0	2.7	.6	3.0	12.3	.1	12.2
1978-79:								
Total	30.1	22.3	5.5	2.3	8.1	38.2	.5	37.7
Public	20.4	16.0	2.7	1.7	5.0	25.4	.4	25.0
Nonpublic	9.7	6.3	2.8	.6	3.1	12.8	.1	12.7
1979-80:								
Total	31.5	23.4	5.7	2.4	8.5	40.0	.5	39.5
Public	21.5	16.9	2.8	1.8	5.3	26.8	.4	26.4
Nonpublic	10.0	6.5	2.9	.6	3.2	13.2	.1	13.1

[1] Includes general administration, instruction and departmental research, extension and public services, libraries, operation and maintenance of the physical plant, and sponsored activities such as training institutes and related sponsored activities which were specifically financed by outside sources.

[2] Includes expenditures for such items as laboratory schools, medical school hospitals, dental clinics, home economics cafeterias, agricultural college creameries, college-operated industrial plants connected with instructional programs but not actually integral parts of it, and all other expenditures for educational and general activities which are not specifically identified as expended for "student education" or organized research.

[3] Auxiliary enterprises include student dormitories, dining halls, cafeterias, student unions, bookstores, faculty housing, athletic programs not part of the instructional program, lectures, concerts, and also include expenditures for plant assets from current funds which are not itemized under educational and general expenditures.

Student aid includes only grants to students in the form of scholarships, fellowships, grants-in-aid, and prizes and awards for which no services are required of the student. Loans to students are not included.

[4] Current-fund expenditures less capital outlay from current funds.

[5] Interpolated.

[6] Estimated.

[7] The projection of expenditures from current funds is based on assumption that: (1) Expenditure per student and the percent of college-age persons attending college, on which expenditures for student education depend, will continue to increase as they did during the years 1959-60 to 1969-70; (2) expenditures for organized research will follow the 1959-60 to 1969-70 trend; (3) the relationship to student education of expenditures for related activities, for auxiliary enterprises, and for student aid will each continue the 1959-60 to 1969-70 trend; and (4) the 1969-70 to 1979-80 expenditures from current funds for capital outlay will approximate 16 percent of total capital outlay.

For further methodological details, see appendix A, table A-4.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: Expenditure data from U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Financial Statistics of Institutions of Higher Education," 1959-60; (2) "Higher Education Finances," 1961-62 and 1963-64; (3) "Financial Statistics of Institutions of Higher Education, 'Current Funds Revenues and Expenditures' and 'Property', 1965-66 and 1966-67"; and (4) unpublished data in the Office of Education. Conversion to 1969-70 dollars was based on the Consumer Price Index published by the Bureau of Labor Statistics, U.S. Department of Labor and (for capital outlay) on the American Appraisal Company Construction Cost Index. For method of converting the indexes, see appendix B, table B-8.

Table 47.—Expenditures from current funds and total current expenditures (current dollars) by institutions of higher education: United States, 1959-60 to 1971-72

[In billions of current dollars]

Year and control	Expenditures for educational and general purposes				Expenditures for auxiliary enterprises and student aid[3]	Total expenditures from current funds (sum of columns 2 and 6)	Capital outlay from current funds only	Total current expenditures[4] (column 7 less column 8)
	Total (sum of columns 3, 4, and 5)	Student education[1]	Organized research	Related activities[2]				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1959-60:								
Total	$4.5	$3.2	$1.0	$0.3	$1.1	$5.6	$0.2	$5.4
Public	2.6	1.9	.5	.2	.5	3.1	.1	3.0
Nonpublic . .	1.9	1.3	.5	.1	.6	2.5	.1	2.4
1960-61:[5]								
Total	5.1	3.6	1.2	.3	1.2	6.3	.3	6.0
Public	2.9	2.1	.6	.2	.6	3.5	.2	3.3
Nonpublic . .	2.2	1.5	.6	.1	.6	2.8	.1	2.7
1961-62:								
Total	5.7	3.9	1.5	.3	1.4	7.1	.3	6.8
Public	3.2	2.3	.7	.2	.7	3.9	.2	3.7
Nonpublic . .	2.5	1.6	.8	.1	.7	3.2	.1	3.1
1962-63:[5]								
Total	6.6	4.4	1.7	.5	1.6	8.2	.5	7.7
Public	3.7	2.6	.8	.3	.8	4.5	.3	4.2
Nonpublic . .	2.9	1.8	.9	.2	.8	3.7	.2	3.5
1963-64:								
Total	7.4	5.0	1.9	.5	1.8	9.2	.4	8.8
Public	4.2	3.0	.9	.3	.9	5.1	.2	4.9
Nonpublic . .	3.2	2.0	1.0	.2	.9	4.1	.2	3.9
1964-65:[5]								
Total	8.5	5.7	2.2	.6	2.1	10.6	.5	10.1
Public	4.8	3.4	1.0	.4	1.1	5.9	.3	5.6
Nonpublic . .	3.7	2.3	1.2	.2	1.0	4.7	.2	4.5
1965-66:								
Total	9.9	6.8	2.5	.6	2.5	12.4	.5	11.9
Public	5.7	4.1	1.2	.4	1.3	7.0	.3	6.7
Nonpublic . .	4.2	2.7	1.3	.2	1.2	5.4	.2	5.2
1966-67:								
Total	11.3	8.0	2.5	.8	2.9	14.2	.6	13.6
Public	6.7	5.0	1.2	.5	1.6	8.3	.4	7.9
Nonpublic . .	4.6	3.0	1.3	.3	1.3	5.9	.2	5.7
1967-68:								
Total	13.2	9.6	2.7	.9	3.3	16.5	.7	15.8
Public	8.2	6.2	1.4	.6	1.8	10.0	.4	9.6
Nonpublic . .	5.0	3.4	1.3	.3	1.5	6.5	.3	6.2

See footnotes at end of table.

Table 47.—Expenditures from current funds and total current expenditures (current dollars) by institutions of higher education: United States, 1959-60 to 1971-72—Continued

[In billions of current dollars]

Year and control	Expenditures for educational and general purposes				Expenditures for auxiliary enterprises and student aid[3]	Total expenditures from current funds (sum of columns 2 and 6)	Capital outlay from current funds only	Total current expenditures[4] (column 7 less column 8)
	Total (sum of columns 3, 4, and 5)	Student education[1]	Organized research	Related activities[2]				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1968-69:[6]								
Total	15.2	11.1	3.1	1.0	3.8	19.0	.6	18.4
Public	9.7	7.4	1.6	.7	2.2	11.9	.4	11.5
Nonpublic . .	5.5	3.7	1.5	.3	1.6	7.1	.2	6.9
1969-70:[6]								
Total	17.4	12.7	3.5	1.2	4.4	21.8	.5	21.3
Public	11.2	8.6	1.8	.8	2.6	13.8	.4	13.4
Nonpublic . .	6.2	4.1	1.7	.4	1.8	8.0	.1	7.9
					PROJECTED[7]			
1970-71:								
Total	19.2	14.0	3.9	1.3	4.9	24.1	.6	23.5
Public	12.5	9.6	2.0	.9	2.9	15.4	.5	14.9
Nonpublic . .	6.7	4.4	1.9	.4	2.0	8.7	.1	8.6
1971-72:								
Total	21.3	15.7	4.2	1.4	5.5	26.8	.7	26.1
Public	13.9	10.8	2.1	1.0	3.3	17.2	.5	16.7
Nonpublic . .	7.4	4.9	2.1	.4	2.2	9.6	.2	9.4

[1] Includes general administration, instruction and departmental research, extension and public services, libraries, operation and maintenance of the physical plant, and sponsored activities such as training institutes and related sponsored activities which were specifically financed by outside sources.

[2] Includes expenditures for such items as laboratory schools, medical school hospitals, dental clinics, home economics cafeterias, agricultural college creameries, college-operated industrial plants connected with instructional programs but not actually integral parts of it, and all other expenditures for educational and general activities which are not specifically identified as expended for "student education" or organized research.

[3] Auxiliary enterprises include student dormitories, dining halls, cafeterias, student unions, bookstores, faculty housing, athletic programs not part of the instructional program, lectures, concerts, and also include expenditures for plant assets from current funds which are not itemized under educational and general expenditures.

Student aid includes only grants to students in the form of scholarships, fellowships, grants-in-aid, and prizes and awards for which no services are required of the student. Loans to students are not included.

[4] Current-fund expenditures less capital outlay from current funds.

[5] Interpolated.

[6] Estimated.

[7] Projected by applying the 1965-66 to 1969-70 trend in the Consumer Price Index to the projected expenditures of current funds in constant dollars (table 46).

For further methodological details, see appendix A, table A-4.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: Expenditure data from U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Financial Statistics of Institutions of Higher Education," 1959-60; (2) "Higher Education Finances," 1961-62 and 1963-64; (3) "Financial Statistics of Institutions of Higher Education, 'Current Funds Revenues and Expenditures' and 'Property,' 1965-66 and 1966-67"; and (4) unpublished data in the Office of Education.

Table 48.—Capital outlay of institutions of higher education: United States, 1959-60 to 1979-80

Year	Total		Public		Nonpublic	
(1)	Billions of current dollars (2)	Billions of 1969-70 dollars (3)	Billions of current dollars (4)	Billions of 1969-70 dollars (5)	Billions of current dollars (6)	Billions of 1969-70 dollars (7)
1959-60	1.354	2.054	.807	1.224	.547	.830
[1] 1960-61	1.737	2.574	.932	1.381	.805	1.193
1961-62	1.714	2.482	1.010	1.462	.704	1.020
[1] 1962-63	2.534	3.571	1.596	2.249	.938	1.322
1963-64	2.466	3.376	1.518	2.078	.948	1.298
[1] 1964-65	2.825	3.771	1.595	2.129	1.230	1.642
1960-61 to 1964-65	11.276	15.774	6.651	9.299	4.625	6.475
1965-66	3.253	4.194	2.064	2.661	1.189	1.533
1966-67	3.943	4.816	2.573	3.142	1.370	1.674
1967-68	4.175	4.841	2.732	3.168	1.443	1.673
[2] 1968-69	3.639	3.898	2.676	2.867	.963	1.031
[2] 1969-70	3.551	3.551	2.852	2.852	.699	.699
1965-66 to 1969-70	18.561	21.300	12.897	14.690	5.664	6.610
	PROJECTED[3]					
1970-71	3.697	3.503	2.953	2.798	.744	.705
1971-72	3.893	3.505	2.862	2.577	1.031	.928
1972-73	....	3.688	....	2.599	....	1.089
1973-74	....	3.865	....	2.719	....	1.146
1974-75	....	3.802	....	2.719	....	1.083
1970-71 to 1974-75	....	18.363	....	13.412	....	4.951
1975-76	....	3.512	....	2.618	....	.894
1976-77	....	3.216	....	2.505	....	.711
1977-78	....	2.994	....	2.421	....	.573
1978-79	....	2.818	....	2.342	....	.476
1979-80	....	2.709	....	2.302	....	.407
1975-76 to 1979-80	....	15.249	....	12.188	....	3.061

[1] Interpolation based on reported value of plant at close of previous year and beginning of following year.

[2] Estimated.

[3] The projection of capital outlay is based on two known factors: (1) The increase in value of plant during the base period, and (2) the annual increase in the number of full-time-equivalent of all students in higher education, and a projection of the annual increase in the numbers of these students to fall 1979. The following assumptions were made: (1) Since the increase in value of plant did not represent total capital outlay, an estimate of the cost of replacement and rehabilitation at 1% of the value of plant at the end of each base period year was added. (2) That capital outlay per additional FTE student was not closely enough related on an annual basis but was reasonably related over 5-year periods. To permit an annual projection of capital outlay with the aid of projections of FTE students, a 5-year moving average was applied to both the base years and the projected additional numbers of FTE students; and (3) That the trends in capital outlay

Footnotes continued on page 104.

per FTE student would level off at the 1967-68 level and remain constant to 1979-80.

For further methodological details, see appendix table A-4.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: Capital outlay data from U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Financial Statistics of Institutions of Higher Education," 1959-60; (2) "Higher Education Finances," 1961-62 and 1963-64; (3) "Financial Statistics of Institutions of Higher Education, Property," 1965-66 and 1966-67; and (4) unpublished data in the Office of Education.

CHAPTER VI

STUDENT CHARGES BY INSTITUTIONS OF HIGHER EDUCATION

C. George Lind

Definition and limitations

Estimated average student charges are based on the charges reported by institutions of higher education for the years 1961-62 through 1964-65, 1966-67, and 1968-69, weighted by the number of full-time students attending the institutions. The charges were those to a typical undergraduate full-time resident-in-State student. Since reports on student attendance during the 1961-62 through 1964-65, and 1966-67 base years did not identify the full-time students as undergraduates, graduates, or nonresidents, the weighting factor assumes that graduates and nonresidents are charged the undergraduate and resident tuition and fees. Undergraduates were identified in reports on students for 1968-69.

Estimated average charges per student (entire academic year) (tables 49 and 50)

The estimated average student charges (tuition and required fees, board, and room) by publicly controlled institutions of higher education, in 1969-70 constant dollars, increased from $1,057 in 1959-60 to $1,198 in 1969-70 and are expected to reach $1,367 by 1979-80 (table 49). Estimated average student charges by nonpublicly controlled institutions of higher education were $1,965 in 1959-60, $2,520 in 1969-70, and are expected to reach $3,162 by 1979-80.

Tuition and required fees are largely responsible for the increases in student charges. Tuition and fees, in constant 1969-70 dollars, charged by publicly controlled institutions rose from $260 in 1959-60 to $320 in 1969-70 and are expected to reach $392 by 1979-80.

Nonpublicly controlled institutions charged an estimated average tuition and fees of $1,034 in 1959-60, $1,517 in 1969-70, and are projected to be $2,038 by 1979-80. Required fees are those for matriculation, laboratory, library, health, etc., but do not include books. Charges for tuition and required fees vary to a considerable extent by control and type of institution. Two factors bear upon the variation: (1) income of public institutions from government sources and (2) the varying cost of educating a student in different types of institutions.

The charges for board, while increasing slightly during the base period (table 50), when adjusted to constant 1969-70 dollars (table 49) had declined slightly in all but nonpublic 2-year institutions. The declines are not projected and, in effect, the assumption is made that the many large institutions which had held their board charges unchanged, in current unadjusted dollars, would not be able to continue that practice during the next decade.

Nonpublicly controlled institutions generally charge more than publicly controlled institutions for dormitory rooms, and universities generally charge more than other types of institutions for dormitory rooms. However, the rate of the increases in charges for dormitory rooms is not markedly dissimilar by either control or type of institution, and the variations in the charges may be ascribed to the level of accommodation afforded.

Table 49.—Estimated average charges (1969-70 dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1959-60 to 1979-80

[Charges are for the academic year and in constant 1969-70 dollars]

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1959-60:[1]																
Public	$1,057	$1,144	$942	$711	$260	$307	$205	$95	$531	$544	$514	$447	$266	$293	$223	$169
Nonpublic	1,965	2,214	1,837	1,351	1,034	1,210	941	571	593	628	583	526	338	376	313	254
1960-61:[1]																
Public	1,074	1,167	966	732	267	320	217	103	531	544	514	447	276	303	235	182
Nonpublic	2,029	2,289	1,905	1,428	1,086	1,270	997	623	593	628	583	531	350	391	325	274
1961-62:[2]																
Public	1,091	1,190	990	753	274	333	229	111	531	544	514	447	286	313	247	195
Nonpublic	2,093	2,364	1,973	1,505	1,138	1,330	1,053	675	593	628	583	536	362	406	337	294
1962-63:[2]																
Public	1,119	1,224	1,010	763	276	333	238	120	540	566	500	448	303	325	272	195
Nonpublic	2,141	2,509	1,996	1,578	1,172	1,426	1,079	745	590	629	573	530	379	454	344	303
1963-64:[2]																
Public	1,133	1,256	1,035	772	286	344	263	119	532	573	488	442	315	339	284	211
Nonpublic	2,222	2,577	2,080	1,608	1,239	1,488	1,144	786	596	632	581	523	387	457	355	299
1964-65:[2]																
Public	1,149	1,270	1,048	771	294	360	271	120	527	558	486	436	328	352	291	215
Nonpublic	2,305	2,660	2,187	1,758	1,315	1,567	1,236	848	590	622	579	561	400	471	372	349
1965-66:[3]																
Public	1,163	1,306	1,067	792	305	386	284	129	526	560	482	434	332	360	301	229
Nonpublic	2,372	2,738	2,244	1,841	1,365	1,618	1,284	908	586	625	571	560	421	495	389	373
1966-67:[3]																
Public	1,177	1,343	1,086	814	316	413	297	139	524	562	478	431	337	368	311	244
Nonpublic	2,438	2,818	2,302	1,926	1,415	1,670	1,333	969	581	629	562	559	442	519	407	[illegible]

1967-68:[3]																
Public	1,181	1,331	1,106	874	315	406	297	159	519	551	485	446	347	374	324	269
Nonpublic	2,449	2,825	2,337	1,956	1,440	1,702	1,374	991	574	618	557	559	435	505	406	406
1968-69:[2]																
Public	1,184	1,320	1,127	936	313	399	298	180	514	540	492	461	357	381	337	295
Nonpublic	2,459	2,832	2,371	1,987	1,465	1,735	1,415	1,013	566	606	551	560	428	491	405	414
1969-70:[1]																
Public	1,198	1,342	1,147	957	320	412	310	188	511	539	488	461	367	391	349	308
Nonpublic	2,520	2,905	2,435	2,064	1,517	1,795	1,471	1,065	563	604	547	565	440	506	417	434
	PROJECTED[4]															
1970-71:																
Public	1,214	1,366	1,170	978	327	426	321	196	511	539	488	461	376	401	361	321
Nonpublic	2,584	2,979	2,503	2,142	1,569	1,855	1,527	1,117	563	604	547	571	452	520	429	454
1971-72:																
Public	1,232	1,389	1,194	999	335	439	333	204	511	539	488	461	386	411	373	334
Nonpublic	2,648	3,054	2,571	2,220	1,621	1,915	1,583	1,169	563	604	547	576	464	535	441	475
1972-73:																
Public	1,249	1,413	1,216	1,019	342	452	344	211	511	539	488	461	396	422	384	347
Nonpublic	2,712	3,128	2,640	2,297	1,673	1,975	1,640	1,221	563	604	547	581	476	549	453	495
1973-74:																
Public	1,265	1,437	1,240	1,040	349	466	356	219	511	539	488	461	405	432	396	360
Nonpublic	2,776	3,204	2,708	2,375	1,725	2,036	1,696	1,273	563	604	547	587	488	564	465	515
1974-75:																
Public	1,282	1,460	1,263	1,061	356	479	367	227	511	539	488	461	415	442	408	373
Nonpublic	2,840	3,278	2,776	2,452	1,777	2,096	1,752	1,325	563	604	547	592	500	578	477	535

See footnotes at end of table.

Table 49.—Estimated average charges (1969-70 dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1959-60 to 1979-80—Continued

[Charges are for the academic year and in constant 1969-70 dollars]

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1975-76:																
Public	1,299	1,483	1,287	1,082	363	492	379	235	511	539	488	461	425	452	420	386
Nonpublic	2,904	3,353	2,844	2,529	1,829	2,156	1,808	1,377	563	604	547	597	512	593	489	555
1976-77:																
Public	1,315	1,507	1,310	1,103	370	506	390	243	511	539	488	461	434	462	432	399
Nonpublic	2,969	3,427	2,912	2,608	1,881	2,216	1,864	1,429	563	604	547	603	525	607	501	576
1977-78:																
Public	1,333	1,530	1,334	1,124	378	519	402	251	511	539	488	461	444	472	444	412
Nonpublic	3,033	3,502	2,981	2,685	1,933	2,276	1,920	1,481	563	604	547	608	537	622	514	596
1978-79:																
Public	1,350	1,555	1,356	1,145	385	533	413	259	511	539	488	461	454	483	455	425
Nonpublic	3,098	3,577	3,050	2,762	1,986	2,336	1,977	1,533	563	604	547	613	549	637	526	616
1979-80:																
Public	1,367	1,578	1,380	1,166	392	546	425	267	511	539	488	461	464	493	467	438
Nonpublic	3,162	3,651	3,118	2,839	2,038	2,396	2,033	1,584	563	604	547	619	561	651	538	636

[1] Estimated.

[2] Represents charges weighted by numbers of full-time degree-credit students, 1961-62 through 1964-65; weighted by full-time resident students for 1966-67; and by full-time undergraduate degree-credit students for 1968-69. These charges, shown in table 50 in current dollars, were converted to 1969-70 constant dollars by application of the Consumer Price Index. See constant dollar index, appendix B, table B-8.

[3] Interpolated.

[4] The projection of basic student charges is based on the assumption that these charges will continue to increase through 1979-80 as they did during the base years of 1961-62 through 1964-65, 1966-67, and 1968-69 in constant dollars. Decreases in charges for board during the base period are not projected and are frozen at the 1969-70 level. The base year data for board charges, in current unadjusted dollars, did show increases for all types of institutions, both publicly and privately controlled, but not enough to offset the application of the Consumer Price Index for the computation of constant 1969-70 dollars.

For further methodological details, see appendix A, table A-5.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Higher Education on Basic Student Charges," 1961-62 through 1964-65, 1966-67, and 1968-69; and (2) "Opening (Fall) Enrollment in Higher Education," 1961 through 1964, 1966, and 1968.

Table 50.—Estimated average charges (current dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1959-60 to 1971-72

[Charges are for the academic year and in current unadjusted dollars]

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-Year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1959-60[1]																
Public	$822	$890	$732	$553	$202	$239	$159	$74	$413	$423	$400	$348	$207	$228	$173	$131
Nonpublic	1,528	1,722	1,429	1,051	804	941	732	444	461	489	454	409	263	292	243	198
1960-61[1]																
Public	845	920	761	576	210	252	171	81	418	429	405	352	217	239	185	143
Nonpublic	1,599	1,804	1,501	1,125	856	1,001	786	491	467	495	459	418	276	308	256	216
1961-62:																
Public	869	947	788	599	218	265	182	88	423	433	409	356	228	249	197	155
Nonpublic	1,666	1,882	1,570	1,198	906	1,059	838	537	472	500	464	427	288	323	268	234
1962-63:																
Public	901	986	814	615	222	268	192	97	435	456	403	361	244	262	219	157
Nonpublic	1,724	2,022	1,608	1,271	944	1,149	869	600	475	507	462	427	305	366	277	244
1963-64:																
Public	926	1,026	846	630	234	281	215	97	435	468	399	361	257	277	232	172
Nonpublic	1,815	2,105	1,700	1,313	1,012	1,216	935	642	487	516	475	427	316	373	290	244
1964-65:																
Public	950	1,051	867	638	243	298	224	99	436	462	402	361	271	291	241	178
Nonpublic	1,907	2,202	1,810	1,455	1,088	1,297	1,023	702	488	515	479	464	331	390	308	289
1965-66[2]																
Public	984	1,103	902	670	258	326	240	109	445	473	408	367	281	304	254	194
Nonpublic	2,005	2,314	1,898	1,556	1,154	1,368	1,086	768	495	528	483	473	356	418	329	315
1966-67:																
Public	1,026	1,171	947	710	275	360	259	121	457	490	417	376	294	321	271	213
Nonpublic	2,124	2,456	2,007	1,679	1,233	1,456	1,162	845	506	548	490	487	385	452	355	347

See footnotes at end of table.

Table 38.—Estimated average charges (current dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1959-60 to 1971-72—Continued

[Charges are for the academic year and in current unadjusted dollars]

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1967-68 [2]																
Public	$1,064	$1,199	$996	$787	$284	$366	$267	$143	$467	$496	$437	$402	$313	$337	$292	$242
Nonpublic	2,206	2,545	2,106	1,762	1,297	1,533	1,238	893	517	557	502	503	392	455	366	366
1968-69																
Public	1,117	1,245	1,083	883	295	377	281	170	485	509	484	435	337	359	318	278
Nonpublic	2,321	2,673	2,237	1,876	1,383	1,638	1,335	956	534	572	520	529	404	463	382	391
1969-70 [1]																
Public	1,198	1,342	1,147	957	320	412	310	188	511	539	488	461	367	391	349	308
Nonpublic	2,520	2,905	2,435	2,064	1,517	1,795	1,471	1,065	563	604	547	565	440	506	417	434
1970-71 [1]																
Public	1,259	1,417	1,213	1,014	339	442	333	203	530	559	506	478	390	416	374	333
Nonpublic	2,680	3,089	2,596	2,221	1,627	1,924	1,584	1,158	584	626	567	592	469	539	445	471
1971-72 [1]																
Public	1,324	1,492	1,283	1,073	360	472	358	219	549	579	524	495	415	441	401	359
Nonpublic	2,844	3,281	2,762	2,385	1,741	2,057	1,700	1,256	605	649	588	619	498	575	474	510

[1] Data for 1959-60 through 1960-61 and for 1969-70 through 1971-72 estimated by applying the Consumer Price Index to the data in table 40. See constant dollar index, appendix B, table B-6.

[2] Interpolated.

For further methodological details, see appendix A, table A-5.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Higher Education Basic Student Charges," 1961-62 through 1964-65, 1966-67, and 1968-69; and (2) "Opening (Fall) Enrollment in Higher Education," 1961 through 1964, 1966, and 1968.

APPENDIX A

General Methodology

Estimation Methods

Classification of Degrees by Field of Study

Changes in Degree—Level Definitions

Glossary

APPENDIX A

GENERAL METHODOLOGY

The 1970 projections of educational data by the U.S. Office of Education are based on reports of regular day schools, both public and private, and of accredited institutions of higher education listed in the Education Directory of the Office of Education.[1] The projections include enrollments at all levels, high school graduates, degrees by level and field, teacher and faculty demand, and expenditures in elementary and secondary schools and in institutions of higher education. Projections based directly on population were the number of children attending independent nursery and kindergarten schools, those attending kindergarten and first grade of regular public schools, enrollments in higher education, high school graduates, and degrees by level. The other projections with the exception of enrollment in grades 2 through 12 of the public schools and of degrees by field, were based on enrollments. Enrollments in grades 2 through 12 of public schools were based on grade retention rates. (Retention rates could not be used for projecting higher education enrollments because the data on these enrollments have not been collected by year of enrollment.) Degrees by field were based on the distribution of total degrees by field at each level over a 10-year period.

Population aged 18-21 years was used for projecting college enrollments. It is recognized that not all college enrollments fall in this age group; nevertheless, in the absence of data on age of college students, some fairly sensitive yet stable exposure measure had to be used. Since about two-thirds of all degree-credit enrollment is full-time, it can be assumed that around the same proportion of the students fit the population age group used. The population averaging 18 years of age was chosen for projecting both high school graduates and first-time college enrollment. This age group gave a smoother fit when correlated with these data than could be obtained with other age groups. For projecting kindergarten and first-grade enrollments, the populations aged 5 and 6 years, respectively, were used.

For projecting degrees, a composite population representative of the actual ages of the recipients of such degrees was used. (For details of estimating this population, see appendix A, "Estimation Methods".) To avoid escalation in graduation rates, the projection of degrees at all levels was based directly on the composite population, with a suitable timelag taken into account, rather than on enrollments or lower level degrees.

The choice of average time elapsed between the ages for bachelor's degrees and master's degrees and between the ages for master's degrees and doctorates was made on an empirical basis. The different series of degree data were plotted against time so that different timelags between the series could be compared. The following choices were made: Age at time of master's degree, 2 years older than age at time of bachelor's degree; age at time of doctorate, 3 years older than age at time of master's degree.

For making the projections, regression methods were used wherever a trend could be established. Where no consistent series was available or the data were too irregular to establish a trend, a constant based on the latest observation or an average of the last two or three observations was used. For some projections—such as graduate enrollments, enrollments in institutions of higher education by full-time and part-time attendance, and nondegree-credit enrollments—relationships had to be obtained from a different series of data and transferred to the opening fall higher education enrollment series. The latter series is current and has been reasonably consistent in the past, although lacking some detailed characteristics which are required by educators for decisionmaking.

For the trend, observations in the 11 most recent years were used, and these were extrapolated for 10 years into the future. The 11-year timespan was considered better than a longer timespan because of the rapid change in economic and social conditions and the improvement in the available statistics in recent years.

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[1] U.S. Department of Health, Education, and Welfare, Office of Education, "Education Directory, 1969-70, Higher Education," U.S. Government Printing Office, Washington, D.C., 1970.

Straight lines fitted by the least squares technique to a ratio (for example, of enrollment to population) as the dependent variable and time in years as the independent variable were used for projecting whenever possible. The rationale for using the straight line is that the long-range, true curve of relationship would be likely to approximate a straight line over any portion covering so short a timespan. An advantage in using straight lines is their additive property when the ratio bases are the same. This simplified projection of components (all complex data are usually projected by components and summed).

The fitted straight line often lies considerably above or below the last observed point, resulting in an unrealistic rise or drop from the last actual observation. To avoid this and give face validity to the projections, the line was used only to establish the last point, and a new line was drawn through the last observed ratio and the end point on the curve. (In this case, the fitted equation is used only to establish the ratio at the end of the 10-year span.) When all of the component curves are adjusted in this manner, they are additive just as the original curves were. For this reason, when any curve in a group of components exhibited a serious difference from the last observation, all of the component curves were adjusted, even if differences were slight. An independent curve was adjusted only when the discrepancy was serious.

One of the exceptions to the use of the straight line for projecting trends was made in projecting grade-retention rates in the public schools. Because retention rates have risen rapidly in the past 10 years, a straight line equation would produce projected rates well above permissible limits. To allow for leveling off and to keep within such limits, an asymptotic equation was used, with limits at 100 percent, except at certain grade levels where transfer of students from nonpublic schools occurs in large numbers.

For each major area (enrollments, degrees, teachers, and expenditures), the tables that follow outline the equations and constants that were used; the standard errors and indexes of determination, when appropriate; and adjustments, if used. Adjustments have been expressed in terms of the projection equation. Footnotes explain the meaning of the variables and constants used for estimating.

The tables are followed by sections which explain the methods used in estimating missing data of the past 10 years, define the meaning of terms as used by the Office of Education in requesting data, and outline the classification of summarized degree data.

Table A-1—Methodology (Chapter II)

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; z=percent (natural logs); t=year; 1959=1)	Index of determination	Standard error	Adjusted equation[1]	
Fall enrollment (independent public kindergarten and nursery schools)	2						(3)
3 years old			y'=0.65+0.30t	0.89	0.22	y'=0.18+0.33t	
4 years old			y'=7.07+0.81t	.86	.69	y'=5.62+0.90t	
5 years old			y'=45.55+1.91t	.97	.73	y'=44.96+1.95t	
6 years old			y'=2.38+0.21t	.42	.51	y'=2.91+0.17t	
Fall enrollment (independent nonpublic kindergarten and nursery schools)	2						(8)
3 years old			y'=2.51+0.67t	.98	.18	y'=2.71+0.66t	
4 years old			y'=6.06+1.01t	.99	.25	y'=5.93+1.02t	
5 years old			y'=10.47+0.21t	.21	.87	y'=11.10+0.17t	
6 years old		0.61					
Fall enrollment (regular public day schools)	3						
Kindergarten			y'=44.95+1.57t	.93	1.52	y'=50.67+1.30t	
Grade 1			y'=94.734-0.068t	.22	.450	y'=94.868-0.074t	
Grade 2			z'=log (100-y')=1.887-0.020t	.60	.058	z'=1.890-0.020t	
Grade 3			z'=log (100-y')=0.533-0.051t	.20	.349	z'=0.964-0.071t	
Grade 4			z'=log (100-y')=0.307-0.037t	.24	.228	z'=0.298-0.037t	
Grade 5			z'=log (100-y')=0.307-0.114t	.36	.528	z'=0.063-0.115t	
Grade 6			z'=log (100-y')=0.826-0.259t	.68	.617	z'=0.240-0.231t	
Grade 7			z'=log (104-y')=1.240-0.113t	.78	.210	z'=1.028-0.103t	
Grade 8			z'=log (100-y')=1.201-0.122t	.83	.190	z'=1.503-0.137t	
Grade 9			z'=log (105-y')=1.203-0.142t	.59	.413	z'=1.201-0.142t	
Grade 10			z'=log (100-y')=2.047-0.110t	.89	.135	z'=2.458-0.130t	
Grade 11			z'=log (100-y')=2.435-0.046t	.73	.099	z'=2.700-0.059t	
Grade 12			z'=log (100-y')=2.335-0.031t	.36	.145	z'=2.648-0.046t	

Elementary ungraded[26]			y'=0.669+0.081t	.77	.156	y'=1.206+0.056t	
Secondary ungraded[27]			y'=0.784+0.074t	.97	.042	y'=0.690+0.079t	
Postgraduate[28]			y'=0.023+0.042t	.74	.086	y'=0.208+0.033t	
Organizational level[28]	4		y'=51.26+1.55t	.82	2.51	y'=58.26+1.21t	
Fall enrollment (regular nonpublic day schools)	3, 4						
Grades kindergarten to 8							([30])
Grades 9 to 12							([31])
Degree-credit fall enrollment[29]	6-8, 13						
Men, public 4-year institutions			y'=19.70+1.02t	.95	.79	y'=21.14+0.95t	
Women, public 4-year institutions			y'=11.25+1.10t	.98	.48	y'=12.69+1.03t	
Men, private 4-year institutions			y'=18.97-0.20t	.78	.38	y'=18.74-0.19t	
Women, private 4-year institutions			y'=10.159+0.061t	.32	.306	y'=9.514+0.091t	
Men, public 2-year institutions			y'=3.80+0.57t	.94	.51	y'=5.65+0.48t	
Women, public 2-year institutions			y'=1.83+0.43t	.94	.37	y'=3.19+0.37t	
Men, private 2-year institutions			y'=0.555+0.032t	.63	.087	y'=0.179+0.050t	
Women, private 2-year institutions			y'=0.579+0.017t	.67	.041	y'=0.468+0.022t	
Nondegree-credit fall enrollment[29]	9-11						
Men, public 4-year institutions			y'=0.376+0.015t	.75	.030	y'=0.334+0.017t	
Women, public 4-year institutions			y'=0.084+0.019t	.54	.062	y'=0.025+0.022t	
Men, private 4-year institutions			y'=0.2011-0.0038t	.24	.0235	y'=0.1190-0.0001t	
Women, private 4-year institutions			y'=0.0867+0.0046t	.45	.0180	y'=0.0285+0.0074t	
Men, public 2-year institutions			y'=1.06+0.29t	.91	.31	y'=1.59+0.26t	
Women, public 2-year institutions			y'=0.20+0.23t	.95	.19	y'=0.47+0.22t	
Men, private 2-year institutions[30]		0.15					
Women, private 2-year institutions			y'=0.2293-0.0052t	.27	.0298	y'=0.1825-0.0030t	

See footnotes at end of table.

Table A-1—Methodology (Chapter II)—Continued

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; z=percent (natural logs); t=year; 1959=1)	Index of determination	Standard error	Adjusted equation[1]	
Full-time nondegree-credit fall enrollment[2,3]	9-11						
Men, public 4-year institutions		49.3					
Women, public 4-year institutions		42.1					
Men, private 4-year institutions		27.1					
Women, private 4-year institutions		46.4					
Men, public 2-year institutions		47.3					
Women, public 2-year institutions		43.8					
Men, private 2-year institutions		66.9					
Women, private 2-year institutions		70.9					
Full-time-equivalent degree-credit fall enrollment[2,4]	12						
Public institutions		33.0					
Private institutions		33.0					
Full-time-equivalent nondegree-credit fall enrollment[2,5]	12						
Public institutions		28.0					
Private institutions		28.0					
First-time degree-credit fall enrollment[2,6]	14-16						
Men, public 4-year institutions			$y'=15.26+0.52t$	0.90	0.62	$y'=15.81+0.50t$	
Women, public 4-year institutions			$y'=10.84+0.68t$	.96	.50	$y'=11.47+0.65t$	
Men, private 4-year institutions			$y'=13.85-0.22t$	.81	.37	$y'=14.46-0.25t$	
Women, private 4-year institutions			$y'=9.681-0.034t$	.19	.246	$y'=9.828-0.041t$	
Men, public 2-year institutions			$y'=5.92+0.90t$	.89	1.09	$y'=8.11+0.79t$	

Women, public 2-year institutions			y'=3.33+0.67t	.92	.71	y'=5.22+0.58t
Men, private 2-year institutions			y'=1.011+0.052t	.60	.147	y'=0.274+0.087t
Women, private 2-year institutions			y'=1.169+0.032t	.70	.073	y'=0.980+0.041t
Full-time first-time degree-credit fall enrollment**	14-16					
Men, public 4-year institutions		89.9				
Women, public 4-year institutions		88.6				
Men, private 4-year institutions		90.2				
Women, private 4-year institutions		91.3				
Men, public 2-year institutions		66.6				
Women, public 2-year institutions		56.5				
Men, private 2-year institutions		87.8				
Women, private 2-year institutions		89.0				
Graduate fall enrollment (4-year institutions)**	17					
Men, public institutions			y'=11.50+0.40t	.99	.11	y'=11.11+0.42t
Women, public institutions			y'=7.46+0.47t	.95	.34	y'=8.56+0.42t
Men, private institutions			y'=12.63+0.43t	.97	.26	y'=12.97+0.41t
Women, private institutions			y'=7.99+0.44t	.89	.50	y'=9.15+0.39t

See footnotes at end of table.

Table A-1.—Methodology (Chapter II)—Continued

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; z=percent (natural logs); t=year; 1959=1)	Index of determination	Standard error	Adjusted equation[1]	
Full-time graduate fall enrollment (4-year institutions)[illegible]	17						
Men, public institutions		45.8					
Women, public institutions		33.1					
Men, private institutions		40.0					
Women, private institutions		35.6					
Full-time undergraduate and first-professional degree-credit fall enrollment (4-year institutions)[illegible]	19						
Men, public institutions		81.7					
Women, public institutions		77.0					
Men, private institutions		82.4					
Women, private institutions		82.3					
Full-time undergraduate degree-credit fall enrollment (2-year institutions)[illegible]	8						
Men, public institutions		59.8					
Women, public institutions		48.1					
Men, private institutions		35.8					
Women, private institutions		86.5					

[1] Adjusted by relocating line through last observed point and 1979 point of fitted line.

[illegible] First observation is for 1964.

[illegible] Total public kindergarten and nursery school enrollment less kindergarten enrollment in regular public day schools.

[illegible] y = percent 3-year-olds enrolled in public kindergarten and nursery schools is of population aged 3 years.

[illegible] y = percent 4-year-olds enrolled in public kindergarten and nursery schools is of population aged 4 years.

[illegible] y = percent 5-year-olds enrolled in public kindergarten and nursery schools is of population aged 5 years.

[26] y = percent elementary ungraded enrollment is of population aged 5 to 13.

[27] y = percent secondary ungraded enrollment is of population aged 14 to 17.

[28] y = percent postgraduate enrollment is of population aged 18 at nearest birthday.

[29] y = percent 7th and 8th grades organized as secondary are of total 7th and 8th grades.

[30] Approximations based on the assumption that the number of enrollments in grade K-8 in nonpublic schools will continue to decrease to 1972, and then remain constant through 1979.

[31] Approximations based on the assumption that the number of enrollments in grades 9-12 in nonpublic schools will remain at the 1968 level through 1979.

[7] y = percent 6-year-olds enrolled in public kindergarten and nursery schools is of population aged 6 years.

[8] Total nonpublic kindergarten and nursery school enrollment less kindergarten enrollment in regular nonpublic day schools.

[9] y = percent 3-year-olds enrolled in private kindergarten and nursery schools is of population aged 3 years.

[10] y = percent 4-year-olds enrolled in private kindergarten and nursery schools is of population aged 4 years.

[11] y = percent 5-year-olds enrolled in private kindergarten and nursery schools is of population aged 5 years.

[12] Constant = 1969 percent 6-year-olds enrolled in private kindergarten and nursery schools is of population aged 6 years.

[13] y = percent kindergarten enrollment is of population aged 5 years.

[14] y = percent 1st grade enrollment is of population aged 6 years.

[15] y = percent (in natural logs) grade 2 is of grade 1 in preceding year with restriction that percent cannot exceed 100.

[16] y = percent (in natural logs) grade 3 is of grade 2 in preceding year with restriction that percent cannot exceed 100.

[17] y = percent (in natural logs) grade 4 is of grade 3 in preceding year with restriction that percent cannot exceed 100.

[18] y = percent (in natural logs) grade 5 is of grade 4 in preceding year with restriction that percent cannot exceed 100.

[19] y = percent (in natural logs) grade 6 is of grade 5 in preceding year with restriction that percent cannot exceed 100.

[20] y = percent (in natural logs) grade 7 is of grade 6 in preceding year with restriction that percent cannot exceed 104. (Transfers from nonpublic schools assumed to account for excess over 100.)

[21] y = percent (in natural logs) grade 8 is of grade 7 in preceding year with restriction that percent cannot exceed 100.

[22] y = percent (in natural logs) grade 9 is of grade 8 in preceding year with restriction that percent cannot exceed 105. (Transfers from nonpublic schools assumed to account for excess over 100.)

[23] y = percent (in natural logs) grade 10 is of grade 9 in preceding year with restriction that percent cannot exceed 100.

[24] y = percent (in natural logs) grade 11 is of grade 10 in preceding year with restriction that percent cannot exceed 100.

[25] y = percent (in natural logs) grade 12 is of grade 11 in preceding year with restriction that percent cannot exceed 100.

[32] y = percent opening fall degree-credit enrollment is of population aged 18-21 in completed years (projected separately by sex and by type and control of institution).

[33] y = percent that opening fall nondegree-credit enrollment is of population aged 18-21 years (projected separately for each category by sex and by type and control of institution).

[34] Constant = 1969 percent that opening fall nondegree-credit enrollment was of the male population aged 18-21 years.

[35] Constant = percent that full-time nondegree-credit enrollment was of total nondegree-credit enrollment in 1968, calculated separately by type and control of institution and by sex.

[36] Constant = percent that full-time equivalent of part-time degree-credit enrollment was of part-time degree-credit enrollment in the 1964 full-time-equivalent enrollment and credit-hours survey (percent same in publicly and privately controlled institutions).

[37] Constant = percent full-time equivalent of part-time nondegree-credit enrollment was of part-time nondegree-credit enrollment in the 1964 full-time-equivalent enrollment and credit-hours survey (percent same in publicly and privately controlled institutions).

[38] y = percent that 1st-time opening fall degree-credit enrollment is of population aged 18 at nearest birthday (projected separately by sex and by type and control of institution).

[39] Constant = percent that full-time first-time degree-credit opening fall enrollment was of total first-time degree-credit opening fall enrollment in 1968.

[40] y = percent that estimated resident graduate degree-credit enrollment was of total resident and extension enrollment in 4-year institutions (projected separately by sex and control of institution). The extrapolated percentages were applied to projected resident and extension opening fall degree-credit enrollment in 4-year institutions.

[41] Constant = percent that full-time graduate enrollment was of total graduate enrollment (estimated from 1967 comprehensive survey of enrollment and 1968 opening fall enrollment survey) calculated separately for each category by control of institution and sex.

[42] Constant = percent that full-time undergraduate and first-professional degree-credit enrollment was of total undergraduate and first-professional degree-credit enrollment (estimated from 1967 comprehensive survey of enrollment and 1968 opening fall enrollment survey) calculated separately for each category by control of institution and sex.

[43] Constant = percent that full-time opening fall degree-credit enrollment was of total opening fall degree-credit enrollment in 1968, calculated separately by control of institution and sex.

Table A-2—Methodology (Chapter III)

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; t=year; 1959-60=1	Index of determination	Standard error	Adjusted equation[1]	
High school graduates	19						
Public[2]							
Men			$y'=53.12+1.32t$	0.89	1.61	$y'=52.04+1.37t$	
Women			$y'=57.61+1.13t$	.87	1.53	$y'=57.27+1.15t$	
Nonpublic[3]		[4]48.1					
Bachelor's and first-professional degrees conferred on men[5]	20		$y'=21.68+0.34t$	.63	.90	$y'=24.12+0.22ts$	
Selected fields[6]	22						
Mathematics and statistics			$y'=3.219+0.099t$	.45	.39	$y'=2.66+0.12t$	
Engineering			$y'=7.0/(1-e^{-[0.46+0.08t]})$	.96	.059[7]	$y'=7.0/(1-e^{-[0.64+0.07t]})$	
Physical sciences			$y'=5.74-0.14t$	.95	.12	$y'=5.74-0.14t$	
Biological sciences			$y'=4.29+0.16t$	.88	.21	$y'=3.60+0.19t$	
Agriculture, forestry			$y'=2.941-0.065t$	.65	.17	$y'=3.314-0.081t$	
Health professions							(8)
Science, general program			$y'=0.676-0.014t$	.51	.048	$y'=0.619-0.012t$	
Fine arts			$y'=3.986+0.049t$	.52	.16	$y'=4.442+0.027t$	
English and journalism			$y'=3.32+0.14t$	.94	.12	$y'=2.88+0.16t$	
Foreign languages			$y'=0.765+0.064t$	.86	.089	$y'=0.476+0.076t$	
Psychology			$y'=1.42+0.21t$	.99	.079	$y'=1.57+0.20t$	
Social sciences			$y'=12.79+0.72t$	.99	.28	$y'=12.24+0.74t$	
Education			$y'=8.11-0.17t$	.92	.17	$y'=8.20-0.17t$	
Library science		[9]0.01					
Social work		[9]0.10					
Business and commerce							
Accounting			$y'=0.04136+0.00014t$	.13	.00123	$y'=0.03955+0.00022t$	
Other business and commerce			$y'=0.15378-0.00092t$	.22	.00609	$y'=0.1776-0.0020t$	
Other			$y'=29.71-0.17t$	(10)	(10)	$y'=31.13-0.24t$	

Bachelor's and first-professional degrees conferred on women[5]	20		y'=10.62+0.68t	0.99	0.23	y'=10.99+0.66t	
Selected fields[6]	22						
Mathematics and statistics			y'=2.15+0.11t	.85	.16	y'=1.88+0.12t	
Engineering		[9]0.08					
Physical sciences		[9]0.70					
Biological sciences			y'=2.884+0.043t	.48	.16	y'=2.345+0.066t	
Agriculture, forestry			y'=0.0390+0.0058t	.65	.015	y'=0.1008+0.0031t	
Health professions							(8)
Science, general program			y'=0.3401-0.0036t	.24	.022	y'=0.3217-0.0028t	
Fine arts			y'=7.851+0.084t	.43	.34	y'=8.802+0.039t	
English and journalism			y'=9.39+0.31t	.92	.31	y'=8.30+0.35t	
Foreign languages			y'=2.11+0.31t	.93	.30	y'=1.01+0.36t	
Psychology			y'=1.92+0.16t	.91	.17	y'=2.44+0.14t	
Social sciences			y'=9.12+0.61t	.97	.35	y'=8.90+0.62t	
Education			y'=40.14-0.97t	.96	.67	y'=39.81-0.96t	
Library science		[9]0.29					
Social work		[9]0.70					
Business and commerce							
Accounting			y'=0.311+0.012t	.60	.036	y'=0.3995+0.0082t	
Other business and commerce			y'=5.33-0.15t	.91	.17	y'=5.88-0.18t	
Other			y'=8.43-0.24t	(10)	(10)	y'=9.32-0.26t	
Master's degrees conferred on men[11]	20		y'=3.89+0.41t	.98	.20	y'=4.26+0.39t	
Selected fields[12]	23						
Mathematics and statistics			y'=2.83+0.17t	.67	.41	y'=1.98+0.20t	
Engineering			y'=15.37-0.16t	.23	.99	y'=13.056-0.055t	
Physical sciences			y'=6.78-0.22t	.82	.35	y'=6.59-0.21t	
Biological sciences			y'=3.278+0.019t	.39	.082	y'=3.046+0.029t	
Agriculture, forestry			y'=3.28-0.13t	.92	.14	y'=3.72-0.15t	
Health professions			y'=2.008-0.036t	.51	.12	y'=2.071-0.039t	
Science, general program			y'=0.7675-0.0055t	.01	.20	y'=0.5518+0.0039t	

See footnotes at end of table.

Table A-2–Methodology (Chapter III) – Continued

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; t=year; 1959-60=1	Index of determination	Standard error	Adjusted equation[1]	
Fine arts			$y'=5.760-0.053t$	0.40	0.23	$y'=6.384-0.082t$	
English and journalism			$y'=3.095+0.043t$	.68	.10	$y'=2.832+0.054t$	
Foreign languages			$y'=1.108+0.077t$	.90	.092	$y'=0.800+0.091t$	
Psychology			$y'=1.899+0.041t$	.57	.12	$y'=1.634+0.052t$	
Social sciences			$y'=9.13+0.22t$	.90	.26	$y'=8.78+0.23t$	
Education			$y'=34.03-0.94t$	.92	.94	$y'=37.00-1.08t$	
Library science			$y'=-0.18+0.11t$	.77	.20	$y'=-0.29+0.11t$	
Social work			$y'=-0.36+0.19t$	.72	.41	$y'=-0.35+0.19t$	
Business and commerce							
Accounting			$y'=0.764+0.015t$	.20	.10	$y'=0.9870+0.0039t$	
Other business and commerce			$y'=6.79+0.78t$	.76	1.53	$y'=8.02+0.72t$	
Other			$y'=3.64-0.12t$	(10)	(10)	$y'=3.49-0.10t$	
Master's degrees conferred on women[11]	20		$y'=15.0/(1+e^{-[-1.94+0.10t]})$	.94	.091[7]	$y'=15.0/(1+e^{-[-1.63+0.088t]})$	
Selected fields[12]	23						
Mathematics and statistics			$y'=1.573+0.078t$	.56	.24	$y'=1.06+0.10t$	
Engineering			$y'=0.1024+0.0048t$	.51	.016	$y'=0.1045+0.0047t$	
Physical sciences			$y'=1.499-0.045t$	.55	.14	$y'=1.330-0.037t$	
Biological sciences			$y'=2.299+0.023t$	.08	.27	$y'=1.802+0.045t$	
Agriculture, forestry			$y'=0.0898+0.0065t$	.56	.020	$y'=0.0699+0.0074t$	
Health professions			$y'=3.222-0.039t$	.24	.24	$y'=3.344-0.044t$	
Science, general program			$y'=0.34784-0.00088t$	.01	.041	$y'=0.3579-0.0013t$	
Fine arts			$y'=7.585+0.013t$	.035	.24	$y'=7.7590+0.0046t$	
English and journalism			$y'=6.61+0.11t$	.35	.52	$y'=5.28+0.17t$	
Foreign languages			$y'=2.27+0.24t$	.85	.35	$y'=1.00+0.29t$	
Psychology			$y'=1.919+0.045t$	.24	.28	$y'=0.815+0.093t$	
Social sciences			$y'=5.03+0.12t$	.58	.36	$y'=4.58+0.14t$	

Education			$y'=61.72-1.58t$	0.92	1.65	$y'=67.66-1.86t$
Library science		[13]6.80				
Social work		[13]4.00				
Business and commerce						
Accounting		[13]0.11				
Other business and commerce		[13]2.14				
Other			$y'=5.56-0.18t$	(10)	(10)	$y'=6.05-0.20t$
Doctor's (except first-professional) degrees conferred on men[14]	20		$y'=0.59+0.11t$	.99	.035	$y'=0.61+0.10t$
Selected fields[15]	24					
Mathematics and statistics			$y'=3.02+0.17t$	.93	.16	$y'=2.80+0.18t$
Engineering			$y'=8.30+0.68t$	.91	.76	$y'=6.43+0.76t$
Physical sciences			$y'=21.40-0.44t$	.91	.48	$y'=20.38-0.39t$
Biological sciences			$y'=11.512-0.034t$	.06	.46	$y'=11.920-0.052t$
Agriculture, forestry			$y'=5.13-0.17t$	.86	.25	$y'=5.19-0.18t$
Health professions			$y'=1.490-0.035t$	.35	.17	$y'=1.461-0.034t$
Science, general program			$y'=0.0228+0.0045t$	.21	.030	$y'=0.10358+0.00097t$
Fine arts			$y'=3.725-0.071t$	.66	.18	$y'=4.51-0.11t$
English and journalism			$y'=3.6763-0.0067t$	.03	.14	$y'=3.6699-0.0064t$
Foreign languages			$y'=1.911+0.037t$	.36	.17	$y'=1.621+0.050t$
Psychology			$y'=6.399-0.084t$	.62	.23	$y'=5.962-0.065t$
Social sciences			$y'=13.037-0.077t$	.36	.35	$y'=13.421-0.093t$

See footnotes at end of table.

Table A-2—Methodology (Chapter III) – Continued

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; t=year; 1959-60=1	Index of determination	Standard error	Adjusted equation[1]	
Education			$y'=13.27+0.11t$	0.23	0.70	$y'=16.161-0.026t$	
Library science		[16]0.04					
Social work			$y'=0.1912+0.0043t$	.075	.052	$y'=0.2224+0.0030t$	
Business and commerce							
Accounting		[16]0.17					
Other business and commerce			$y'=1.635+0.067t$	.63	.18	$y'=1.330+0.082t$	
Other			$y'=4.986-0.150t$	([10])	([10])	$y'=4.841-0.146t$	
Doctor's (except first-professional) degrees conferred on women[14]	20		$y'=0.056+0.017t$	.95	.013	$y'=0.089+0.015t$	
Selected fields[15]	24						
Mathematics and statistics			$y'=1.718+0.071t$	.17	.55	$y'=0.84+0.11t$	
Engineering			$y'=0.351+0.013t$	.06	.18	$y'=0.075+0.025t$	
Physical sciences			$y'=6.830-0.033t$	.05	.48	$y'=5.9177+0.0071t$	
Biological sciences			$y'=11.25+0.30t$	.77	.57	$y'=9.48+0.38t$	
Agriculture, forestry			$y'=0.670-0.025t$	.14	.21	$y'=0.573-0.020t$	
Health professions			$y'=0.620+0.042t$	.29	.23	$y'=0.548+0.045t$	
Science, general program			$y'=-0.0158+0.0085t$	.24	.053	$y'=0.0032+0.0076t$	
Fine arts			$y'=6.22-0.17t$	.96	.20	$y'=6.97-0.20t$	
English and journalism			$y'=6.74+0.23t$	.61	.64	$y'=8.70+0.15t$	
Foreign languages			$y'=5.31+0.17t$	.43	.70	$y'=5.88+0.15t$	
Psychology			$y'=10.624+0.088t$	.09	.99	$y'=8.27+0.19t$	
Social sciences			$y'=11.288-0.056t$	.04	.97	$y'=11.803-0.078t$	
Education			$y'=28.67-0.36t$	.60	.83	$y'=31.30-0.49t$	
Library science			$y'=0.2025+0.0016t$	.0016	.14	$y'=0.0601+0.0078t$	
Social work			$y'=1.0421-0.0099t$	.02	.23	$y'=1.0380-0.0097t$	
Business and commerce							
Accounting		[16]0.10					
Other business and commerce		[16]0.70					
Other			$y'=7.68-0.28t$	([10])	([10])	$y'=8.01-0.29t$	

Footnotes for Table A-2—Methodology (Chapter III)

[1] Adjusted by relocating line through last observed point and 1979-80 point of fitted lined.

[2] y = percent that public high school graduates are of population averaging 18 years of age for men and women separately.

[3] Assumes approximately no change in number of nonpublic high school graduates through 1979-80.

[4] Constant = percent that boys were of nonpublic high school graduates in 1964-65.

[5] y = percent that bachelor's and first-professional degrees are of population averaging 18 years of age, 4 years earlier.

[6] y = percent that bachelor's and first-professional degrees in these selected fields are of all bachelor's and first-professional degrees.

[7] To fit this curve to the data, the transformation $z' = \log [y' / (k-y')]$ was used, where k = asymptote. The standard error is in terms of z' values.

[8] Unpublished projections by Center for Health Statistics, based on estimates of expanding facilities for training and on data showing applications in excess of present capacity.

[9] Constant = percent that bachelor's and first-professional degrees in these selected fields were of all bachelor's and first-professional degrees in 1968-69.

[10] The index of determination and the standard error for this field were not computed since this field was not projected as a total, but is the sum of four projections.

[11] y = percent that master's degrees are of population averaging 18 years of age, 6 years earlier.

[12] y = percent that master's degrees in these selected fields are of all master's degrees.

[13] Constant = percent that master's degrees in these selected fields were of all master's degrees in 1968-69.

[14] y = percent that doctor's degrees are of population averaging 18 years of age, 9 years earlier.

[15] y = percent that doctor's degrees in these selected fields are of all doctor's degrees.

[16] Constant = percent that doctor's degrees in these selected fields were of all doctor's degrees in 1968-69.

Table A-3.–Methodology (Chapter IV)

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; t=year; 1959=1)	Index of determination	Standard error	Adjusted equation[1]	
Classroom teachers in regular day schools	26						
Public elementary							(2)
Public secondary							(2)
Nonpublic elementary							(2)
Nonpublic secondary							(2)
Pupil-teacher ratios in regular elementary and secondary day schools	27						
Public elementary[3]			$y'=28.73-0.10t$	0.67	0.17	$y'=28.434-0.089t$	
Public secondary[3]			$y'=21.679-0.021t$	.19	.11	$y'=21.607-0.018t$	
Nonpublic elementary[4]			$z'=\log(y'-25)=2.571-0.106t$	.99	.087	$z'=2.639-0.109t$	
Nonpublic secondary		17.0[5]					
Demand for classroom teachers in public regular day schools	28						
For enrollment increase							(6)
For teacher turnover[7]		8.0					
For reduction of pupil-teacher ratio							(8)
Demand for classroom teachers in nonpublic regular day schools	29						
For enrollment increase							(6)
For teacher turnover[9]		4.0					
For reduction of pupil-teacher ratio							(8)
Instructional staff in regular elementary and secondary day schools	30						
Public[10]			$y'=106.89+0.41t$	.95	.31	$y'=108.20+0.35t$	
Nonpublic							(11)
Total instructional staff for resident degree-credit courses	31						
Public 4-year institutions[12]			$y'=12.711+0.071t$	.44	.28	$y'=11.68+0.12t$	
Private 4-year institutions[12]			$y'=10.2418-0.0055t$	.0060	.25	$y'=9.0200+0.0527t$	
Public 2-year institutions[12]			$y'=20.54-0.11t.$	.17	.87	$y'=18.3500-0.0045t$	
Private 2-year institutions[12]			$y'=10.01+0.43t$	.81	.74	$y'=11.56+0.36t$	

Full-time instructor or above[13]		56.8	
Part-time instructor or above[14]		28.2	
Junior instructional staff[15]		15.0	
Full-time-equivalent instructional staff for resident degree-credit courses	32		
Full-time equivalent of part-time[16]		33.0	
Full-time equivalent of junior instructional staff[17]		33.0	
Total full-time and part-time professional staff in institutions of higher education	33-37		
Public 4-year institutions:			
Instructional staff:			
For resident degree-credit courses			(18)
Other instructional staff[19]		26.0	
Other professional staff:			
Administration and services[20]		13.0	
Organized research[21]		20.0	
Private 4-year institutions:			
Instructional staff:			
For resident degree-credit courses			(18)
Other instructional staff[19]		6.5	
Other professional staff:			
Administration and services[20]		19.0	
Organized research[21]		10.0	
Public 2-year institutions:			
Instructional staff:			
For resident degree-credit courses			(18)
Other instructional staff[19]		40.3	
Other professional staff:			
Administration and services[20]		15.0	
Organized research[21]		0.05	
Private 2-year institutions:			
Instructional staff:			
For resident degree-credit courses			(18)
Other instructional staff[19]		39.0	
Other professional staff:			
Administration and services[20]		55.0	
Organized research[21]		1.0	

See footnotes at end of table.

Table A-3.—Methodology (Chapter IV)—Continued

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; t=year; 1959=1)	Index of determination	Standard error	Adjusted equation[1]	
Total estimated full-time-equivalent professional staff in institutions of higher education	38						
Instructional staff:							
For resident degree-credit courses							([22])
Other instructional staff[23]		71.0					
Other professional staff:							
Administration and services[23]		71.0					
Organized research[23]		71.0					
Total demand for estimated full-time-equivalent professional staff in institutions of higher education	39						
Demand for additional professional staff:							
For increased enrollment							([24])
For replacement[25]		6.0					

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[1] Adjusted by relocating line through last observed point and the 1979 point on fitted line.

[2] Projected enrollment (table 3) divided by projected pupil-teacher ratio (table 7) calculated separately for each type of school by control and level.

[3] y = ratio of number of pupils to number of teachers.

[4] y = ratio of number of pupils to number of teachers with restriction that ratio cannot go below 25.

[5] Constant = average of 1965 and 1968 ratios of number of pupils to number of teachers.

[6] Total teacher demand in a given year less total teacher demand in the previous year less the number of teachers needed for pupil-teacher ratio changes.

[7] 8 percent of total teacher demand in each previous year.

[8] The enrollment divided by the pupil-teacher ratio of a given year less the same enrollment divided by the pupil-teacher ratio of the previous year.

[9] 4 percent of total teacher demand in each previous year.

[17] Constant = percent full-time equivalent junior instructional staff is of total junior instructional staff (unreported, assumed to be same as full-time equivalent of part-time instructor or above in 1963-64 in all institutions).

[18] See method detailed for table 31 in footnote 12 of this table (methodology table A-3).

[19] Constant = percent total full-time and part-time other instructional staff was of total full-time and part-time instructional staff for resident degree-credit courses in 1963-64, calculated separately for each category by type and control of institution.

[20] Constant = percent total full-time and part-time professional staff for administration and services is of total full-time and part-time instructional staff for degree-credit courses in 1963-64, calculated separately for each category by type and control of institution.

[21] Constant = percent total full-time and part-time professional staff for organized research is of estimated total full-time and part-time instructional staff for degree-credit courses in 1966-67, calculated separately for each category by type and control of institution.

[10] y = ratio of instructional staff to classroom teachers (staff-teacher ratio times projected classroom teachers = projected instructional staff).

[11] Number of instructional staff assumed same as number of classroom teachers.

[12] y = student-staff ratio (enrollment in tables 6 and 7 divided by instructional staff for resident degree-credit courses in tables 33 through 36) calculated separately for each category by type and control of institution and summed in column 2 of table 31.

[13] Constant = percent full-time instructor or above was of total instructional staff in 1963-64 in all institutions.

[14] Constant = percent part-time instructor or above was of total instructional staff in 1963-64 in all institutions.

[15] Constant = percent junior instructional staff was of total instructional staff in 1963-64 in all institutions.

[16] Constant = percent full-time equivalent of part-time instructor or above was of part-time instructor or above in 1963-64 in all institutions.

[22] See method detailed for table 32 in footnotes 16 and 17 of this table (methodology table A-3).

[23] Constant = percent full-time-equivalent instructional staff for resident degree-credit courses is of total full-time and part-time instructional staff for resident degree-credit courses in 1963-64. This percent is assumed to apply to all full-time equivalents as percent of total full-time and part-time staff.

[24] Increase in total full-time equivalents employed over each previous year.

[25] Constant = 6 percent of total full-time equivalents employed in previous year.

NOTE: Sources of data and assumptions on which projections were based are given in text table footnotes.

Table A-4.—Methodology (Chapter V)

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (t=years; 1959-60=1)	Index of determination	Standard error	Adjusted equation	
Expenditures for education by elementary and secondary schools	40,41						
Current expenditures:							
Public							(1)
Nonpublic							(2)
Capital outlay:							
Public							(3)
Nonpublic							(4)
Interest:							
Public							(5)
Nonpublic							(6)
Expenditures for education by institutions of higher education	40,41						
Current expenditures:							
Public							(7)
Nonpublic							(7)
Capital outlay:							
Public							(8)
Nonpublic							(8)
Current expenditures of public school systems	42						
Average daily attendance		[9]92.6					
Current expenditure allocated to pupil costs (excluding effects of 1965 legislation):[10]							
Per pupil in average daily attendance			y'=$462.60+$20.40(t)[11]	0.99	$1.52	y'=$462.60+$20.40(t)	
Total							(12)
Current expenditure allocated to pupil costs (including effects of 1965 legislation):[10]							
Per pupil in average daily attendance							(13)
Total							(14)
Current expenditures for all programs (excluding effects of 1965 legislation):[10]		[15]103.5					

Current expenditures for all programs (including effects of 1965 legislation):[10] . . .		[16]103.5				
Expenditures for salaries of instructional staff in public elementary and secondary day schools	43					
Average annual salary (including effects of 1965 legislation):[10]			y′=$6,482+$220(t)[17]	0.99	$78	y′=$6,358+$226(t)
Total salary						(18)
Average annual salary (excluding effects of 1965 legislation):[10]			y′=$6,459+$223(t)	.99	$50	y′=$6,365+$228(t)
Total salary						
Construction of public elementary and secondary school classrooms and capital outlay	44					
Number of rooms completed		[19]70,000				
Capital outlay (school year):						
Total						(20)
Expenditures for interest by public elementary and secondary schools	45		y′=$580+$55(t)[21]	.97	$31	y′=$577+$55(t)
Expenditures from current funds and total current fund expenditures by institutions of higher education	46,47					
Expenditures for educational and general purposes:						
Student education:						
Public			y′=$1,360.68+$42.42(t)[22]	0.82	$68.86	y′=$1,159.11+$34.88(t)
Nonpublic			y′=$1,407.06+$85.23(t)[23]	.99	$21.65	y′=$1,448.81+$83.24(t)
Organized research:						
Public			y′=$579,790+$107,528(t)[24]	.99	$29,104	y′=$602,489+$106,448(t)
Nonpublic			y′=$621,366+$109,286(t)[25]	.89	$135,378	y′=$325,980+$123,352(t)
Related activities (percent):						
Public			y′=10.080+0.014(t)[26]	.01	0.655	y′=8.583+.085(t)
Nonpublic			y′=8.799+0.049(t)[27]	.19	.349	y′=8.070+0.083(t)
Expenditures for auxiliary enterprises (percent):						
Public			y′=27.540–0.170(t)[28]	.16	1.354	y′=24.635–0.032(t)
Nonpublic			y′=32.303+0.105(t)[29]	.03	2.144	y′=28.966+0.264(t)
Expenditures for student aid (percent):						
Public			y′=2.692+0.244(t)[30]	.77	.465	y′=3.354+0.213(t)
Nonpublic			y′=8.028+0.355(t)[31]	.96	.259	y′=8.211+0.347(t)

See footnotes at end of table.

Table A-4.—Methodology (Chapter V)—Continued

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (t=years; 1959-60=1)	Index of determination	Standard error	Adjusted equation	
Capital outlay from current funds only (percent):							
Public		[32]16.0					
Nonpublic		[32]16.0					
Capital outlay of institutions of higher education	48						
Public:							
Increased capacity		[33]$7,837					
Major replacement and rehabilitation		[34]1.0					
Nonpublic:							
Increased capacity		[33]$25,990					
Major replacement and rehabilitation		[34]1.0					

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[1] See method detailed for table 42 in footnotes 9 to 16 of this table (methodology table A-4).

[2] Ratio of nonpublic school teachers to public school teachers times public school current expenditures.

[3] See method detailed for table 44 in footnotes 19 and 20 of this table (methodology table A-4).

[4] Ratio of nonpublic school teachers to public school teachers times public school capital outlay.

[5] See method detailed for table 45 in footnote 21 of this table (methodology table A-4).

[6] Ratio of nonpublic school teachers to public school teachers time public school interest.

[7] See method detailed for table 45 in footnotes 22 to 31 of this table (methodology table A-4).

[8] See method detailed for table 48 in footnotes 33 and 34 of this table (methodology table A-4).

[9] Constant percent = average percent that average daily attendance in public schools was of K-12 enrollment in public schools in 1963-64 through 1968-69.

[10] The Elementary and Secondary Education Act of 1965.

[23] y = expenditures for student education per full-time-equivalent student in nonpublicly controlled institutions of higher education. (y times projected number of full-time-equivalent students in corresponding years (table 11, column 4) = projected expenditures for student education.)

[24] y = total expenditures for organized research in publicly controlled institutions of higher education.

[25] y = total expenditures for organized research in nonpublicly controlled institutions of higher education.

[26] y = expenditures for related activities as a percent of expenditures for student education in publicly controlled institutions of higher education. (y times projected expenditures for student education in corresponding year = projected expenditures for related activities.)

[27] y = expenditures for related activities as a percent of expenditures for student education in nonpublicly controlled institutions of higher education. (y times projected expenditures for student education in corresponding years = projected expenditures for related activities.)

[28] y = expenditures for auxiliary enterprises as a percent of expenditures for student education in publicly controlled institutions of higher education. (y times projected expenditures for student education in corresponding years = projected expenditures for auxiliary enterprises.)

[11] y = current expenditures allocated to pupil costs per pupil in average daily attendance.

[12] Average daily attendance times per pupil cost for each year.

[13] Current expenditure per pupil increased by $95 per pupil in average daily attendance.

[14] Average daily attendance times per pupil cost augmented by $95 per pupil.

[15] Percent that expenditures for all programs were of expenditures allocated to pupil costs in 1967-68. Constant percent times total current expenditures allocated to pupil costs (excluding effects of act) = current expenditures for all programs (excluding effects of act.)

[16] Percent that expenditures for all programs were of expenditure allocated to pupil costs in 1967-68. Constant percent times total current expenditures allocated to pupil costs (including effects of act) = current expenditures for all programs (including effects of act).

[17] y = average annual salary of instructional staff in public elementary and secondary schools.

[18] Average annual salary times number of instructional staff in public elementary and secondary schools in each year.

[19] Constant = number of rooms completed.

[20] Projected number of rooms completed (table 44) times capital outlay per room.

[21] y = annual expenditure for interest in public elementary and secondary schools.

[22] y = expenditures for student education per full-time-equivalent student in publicly controlled institutions of higher education. (y times projected number of full-time-equivalent students in corresponding years (table 11, colum 3) = projected expenditures for student education.)

[29] y = expenditures for auxiliary enterprises as a percent of expenditures for student education in nonpublicly controlled institutions of higher education. (y times projected expenditures for student education in corresponding years = projected expenditures for auxiliary enterprises.)

[30] y = expenditures for student aid as a percent of expenditures for student education in publicly controlled institutions of higher education. (y times projected expenditures for student education in corresponding years = projected expenditures for student aid.)

[31] y = expenditures for student aid as a percent of expenditures for student education in nonpublicly controlled institutions of higher education. (y times projected expenditures for student education in corresponding years = projected expenditures for student aid.)

[32] Constant percent = 1959-60 to 1967-68 average capital outlay from current funds as percent of capital outlay from all sources. (Projected annual capital outlay from all sources (table 48) times constant percent = projected capital outlay from current funds.)

[33] Constant 1969-70 dollars = 1967-68 capital outlay for increased capacity per number of adjusted additional full-time-equivalent students for 1967-68. Number of additional students each year adjusted by application of a 5-year moving average.

[34] Constant percent = estimated percent of value of plant replaced or rehabilitated each year. Subsequent to 1967-68 this component becomes a part of total capital outlay and is estimated and projected as such.

Table A-5.–Methodology (Chapter VI)

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (y=dollars; t=years; 1959-60=1)	Index of determination	Standard error	Adjusted equation	
Estimated average charges per full-time undergraduate resident degree-credit student in institutions of higher education (dollars)	49,50						
Tuition and required fees:[1]							
Public			$y'=266.81+6.59(t)$	0.906	6.186	$y'=255.55+7.18(t)$	
Universities			$y'=315.08+12.15(t)$	.841	15.383	$y'=292.18+13.35(t)$	
Other 4-year institutions			$y'=223.65+10.59(t)$	.914	9.490	$y'=205.76+11.53(t)$	
2-year institutions			$y'=95.50+9.00(t)$	.848	11.130	$y'=117.09+7.86(t)$	
Nonpublic			$y'=1,091.49+49.79(t)$	.975	23.452	$y'=1,048.58+52.05(t)$	
Universities			$y'=1,306.59+57.35(t)$	.969	29.664	$y'=1,254.06+60.12(t)$	
Other 4-year institutions			$y'=990.59+54.85(t)$	.984	20.587	$y'=965.70+56.16(t)$	
2-year institutions			$y'=640.63+49.68(t)$	.978	21.759	$y'=597.38+51.95(t)$	
Board:[2]							
Public			$y'=539.88-2.97(t)$	.785	4.527	$y'=536.22-2.78(t)$	
Universities			$y'=563.40-1.56(t)$	.101	13.585	$y'=544.52-0.57(t)$	
Other 4-year institutions			$y'=505.47-3.12(t)$	.418	10.718	$y'=525.28-4.16(t)$	
2-year institutions			$y'=440.99+7.94(t)$	.039	11.504	$y'=464.58-0.45(t)$	
Nonpublic			$y'=601.18-3.79(t)$	.808	5.398	$y'=592,84-3.36(t)$	
Universities			$y'=635.16-2.71(t)$	.544	7.218	$y'=622.19-2.02(t)$	
Other 4-year institutions			$y'=588.91-4.35(t)$	.814	6.068	$y'=583.58-4.07(t)$	
2-year institutions			$y'=525.19+4.91(t)$	.559	12.714	$y'=517.45+5.32(t)$	
Room:[3]							
Public			$y'=283.00+9.50(t)$	.963	5.420	$y'=279.55+9.68(t)$	
Universities			$y'=307.27+9.76(t)$	.975	4.513	$y'=299.69+10.16(t)$	
Other 4-year institutions			$y'=243.16+11.79(t)$	.973	5.699	$y'=242.28+11.84(t)$	
2-year institutions			$y'=169.13+14.18(t)$	.929	11.399	$y'=190.65+13.04(t)$	
Nonpublic			$y'=356.73+10.74(t)$	.852	13.067	$y'=331.49+12.06(t)$	
Universities			$y'=417.04+12.32(t)$	.709	23.020	$y'=374.50+14.56(t)$	
Other 4-year institutions			$y'=325.29+11.18(t)$	.926	9.232	$y'=308.53+12.06(t)$	
2-year institutions			$y'=264.60+19.56(t)$	.926	16.064	$y'=252.39+20.20(t)$	

[1] y = average charge for tuition and required fees per full-time degree-credit student, calculated separately for each category by type and control of institution.

[2] y = average charge for board per full-time degree-credit student, calculated separately for each category by type and control of institution with t=9 held constant to 1979-80 with the exception of nonpublic 2-year institutions.

[3] y = average charge for room per full-time degree-credit student, calculated separately for each category by type and control of institution.

ESTIMATION METHODS

General Statement

The basic data for projecting the educational components listed below were wholly or partially estimated for the years indicated. (A few items which were estimated and explained in the tables are not shown here.)

Unless otherwise specified, all educational components were estimated separately by type and control of institution and by sex and attendance status of student:

- Degrees, bachelor's and master's—total, library science, social work—1958-59 to 1965-69 (tables 21-24)
- Enrollment, first-time (tables 14-16)
  - Degree-credit, 1969
  - Attendance status, 1959 to 1967
- Enrollment, total (tables 6-11, 17-19)
  - Graduate (resident), 1959 to 1963
  - Graduate (resident), 1964 to 1966
  - Undergraduate, 1959 to 1966
  - Degree-credit, 1966
  - Nondegree-credit, 1966
  - Degree-credit, 1967
  - Nondegree-credit, 1967
  - Graduate (resident), 1967
  - Undergraduate, 1967
  - Graduate (resident), 1968
  - Undergraduate, 1968
  - Degree-credit, 1969
  - Nondegree-credit, 1969
  - Graduate (resident), 1969
  - Undergraduate, 1969
- Faculty in institutions of higher education, 1966-67 to 1969-70 (tables 31-39)
  - Instructional staff positions, 1966-67
  - Instructional staff positions, 1967-68
  - Instructional staff positions, 1968-69 and 1969-70
  - Professional staff positions, 1966-67 and 1967-68
- Population (composite), 1959 to 1979 (table B-2)

Degrees, bachelor's and master's—total, library science, social work—1958-59 to 1965-69 (tables 21-24)

From 1958-59 to 1964-65, all master's degrees that were considered first-professional were reported as first-professional degrees. These were reported with bachelor's degrees in 1958-59 and 1959-60; the same degrees were reported separately as first-professional and later added to bachelor's degrees from 1960-61 to 1964-65. Most library science and social work master's degrees were in this category.

Beginning in 1965-66, all master's degrees whether or not considered first-professional were reported with master's degrees.

In 1969, in order to obtain comparable series in these two fields as well as for total master's degrees and total bachelor's and first-professional degrees, master's degrees in library science and in social work between 1960-61 and 1964-65 were subtracted from bachelor's and first-professional degrees and added to master's degrees.

For the years 1958-59 and 1959-60, the percentages of total bachelor's and first-professional degrees in library science and in social work that were first-professional in 1960-61 were applied to total bachelor's and first-professional degrees in the corresponding fields in 1958-59 and 1959-60 to estimate the number of master's degrees. These master's degrees were then subtracted from bachelor's and first-professional degrees and added to master's degrees.

Enrollment, first-time (tables 14-16)

Degree-credit, unreported in 1969

To estimate first-time opening fall enrollment by degree-credit status in 1969, percentages calculated from first-time enrollment by degree-credit status in the 1968 opening fall enrollment survey were applied to the 1969 first-time enrollment (combined degree-credit and nondegree-credit).

Attendance status, unreported 1959 to 1967

To estimate degree-credit first-time enrollment by attendance status in 1959 to 1967, percentages of degree-credit first-time enrollment by attendance status calculated from the 1959 and 1961 comprehensive surveys of enrollment and the 1968 opening fall enrollment survey, together with interpolations of these percentages for the years 1960, and 1962 to 1967, were applied to 1959 to 1967 degree-credit first-time enrollment (combined full-time and part-time).

Enrollment, total (tables 6-11, 17-19)

Resident graduate, unreported 1959 to 1963

To estimate resident graduate opening fall enrollment from 1959 to 1963 in each control of institution and sex category, linear equations were fitted to the percentages that resident graduate enrollment were of resident and extension degree-credit enrollment in 4-year institutions calculated from the comprehensive enrollment surveys in 1957, 1959, 1961, and 1963. These estimated percentages were applied to resident and extension degree-credit opening fall enrollment in 4-year institutions in 1959 to 1963.

To estimate resident graduate opening fall enrollment by attendance status from 1959 to 1963 in each control of institution and sex category, use was made of diverse attendance status data from several sources: comprehensive enrollment survey, resident graduate enrollment, 1959 and 1961, undergraduate and first-professional 1957, 1959, 1961, undergraduate 1963; enrollment for advanced degrees (not by sex) 1960 to 1963; opening fall enrollment survey total degree-credit resident and extension 1962 and 1963. By balancing all of this information and by using interpolations and extrapolations, full-time resident graduate enrollment as a percentage of total resident graduate enrollment was estimated for 1959 to 1963 by control and sex categories. These percentages were applied to estimated resident graduate enrollment, 1959 to 1963, in each control of institution and sex and attendance of student category.

Resident graduate, unreported 1964 to 1966

To estimate resident graduate opening fall enrollment from 1964 to 1966 in each control of institution and sex category, interpolations were made between the percentages that resident graduate enrollment was of resident and extension degree-credit enrollment in 4-year institutions in 1963 and 1967. These interpolated percentages were applied to resident and extension degree-credit enrollment in 4-year institutions in 1964, 1965, and 1966.

To estimate resident graduate opening fall enrollment by attendance status from 1964 to 1966 in each control of institution and sex category interpolations were made between the percentages that full-time resident graduate enrollment was of total resident graduate enrollment in 1963 and 1967. These percentages were applied to estimated resident graduate enrollment for 1964, 1965, and 1966, in each control of institution and sex and attendance of student category.

Undergraduate, unreported 1959 to 1966

To estimate resident and extension undergraduate and first-professional opening fall enrollment in 4-year institutions 1959 to 1966, the estimate of resident graduate enrollment was subtracted from degree-credit resident and extension enrollment in 4-year institutions in each year in each control of institution and sex and attendance status of student category. (In 2-year institutions undergraduate degree-credit enrollment is the same as total degree-credit enrollment.)

Degree-credit, unreported in 1966

To estimate resident and extension total opening fall enrollment by degree-credit status and attendance status in 1966, percentages of resident and extension total enrollment by degree-credit status in each attendance status category calculated from the unpublished 1966 comprehensive survey of enrollment (not available by sex) were applied to reported 1966 total enrollment by attendance status categories.

To estimate full-time degree-credit and part-time degree-credit opening fall enrollment by sex in 1966, percentages of full-time degree-credit enrollment by sex and of part-time degree-credit enrollment by sex calculated from the 1965 opening fall enrollment survey (nondegree-credit enrollment was not reported by attendance status in 1965) were applied to estimated degree-credit attendance status categories.

Nondegree-credit, unreported in 1966

The estimation of nondegree-credit enrollment by attendance status in 1966 was a byproduct of the estimation of degree-credit enrollment by attendance status in 1966.

To estimate nondegree-credit total opening fall enrollment by attendance status and sex in 1966, estimated degree-credit categories by attendance and sex were subtracted from reported total degree-credit and nondegree-credit categories by attendance status and sex. These differences were adjusted to agree with the estimated nondegree categories by attendance status which were a byproduct of the estimation of degree-credit enrollment by attendance status.

Degree-credit, unreported 1967

To estimate resident and extension total opening fall enrollment by degree-credit status in 1967:

(1) percentages of resident and extension total enrollment by degree-credit status in each sex category, calculated from the unpublished 1967 comprehensive survey of enrollment, were applied to reported 1967 total enrollment by sex categories.

(2) similar percentages by degree-credit status in each attendance status category, calculated from the 1967 comprehensive enrollment survey, were applied to reported 1967 resident and extension total enrollment by sex categories;

(3) probability estimates were applied to the two sets of estimates (one by sex, one by attendance status) to obtain estimates of resident and extension total enrollment by degree-credit status in each sex and attendance status category.

Nondegree-credit, unreported 1967

The estimation of resident and extension nondegree-credit enrollment by sex and attendance status in 1967 was a byproduct of the estimation of resident and extension degree-credit enrollment by attendance status and sex in 1967.

Resident graduate, unreported in 1967

To estimate resident graduate opening fall enrollment by sex and attendance status in 1967:

(1) percentages of resident postbaccalaureate enrollment by resident graduate and first-professional enrollment status in each sex category, calculated from the unpublished 1967 comprehensive survey of enrollment, were applied to reported 1967 resident postbaccalaureate enrollment in corresponding sex categories;

(2) similar percentages for attendance status categories, calculated from the 1967 comprehensive survey of enrollment (this survey reported categories by sex and attendance status independently), were applied to reported 1967 resident postbaccalaureate enrollment in corresponding attendance status categories;

(3) probability estimates were applied to the two sets of estimates (one by sex, one by attendance status) to obtain estimates of resident graduate and resident first-professional enrollment by sex and attendance status.

Undergraduate and first-professional, unreported in 1967

To estimate resident and extension degree-credit undergraduate and first-professional opening fall enrollment in 4-year institutions in 1967 (a revision because the 1967 comprehensive survey of enrollment was not available until 1970), estimated 1967 resident graduate enrollment was subtracted from the total of estimated 1967 resident and extension degree-credit enrollment in 4-year institutions in each sex and attendance status category.

Resident graduate, unreported in 1968

To estimate resident graduate opening fall enrollment by sex and attendance status in 1968:

(1) percentages of resident and extension postbaccalaureate enrollment by resident graduate, extension graduate, and first-professional enrollment in each sex category, calculated from the unpublished 1967 comprehensive survey of enrollment, were applied to reported 1968 resident and extension postbaccalaureate enrollment in corresponding sex categories;

(2) similar percentages for attendance status categories, calculated from the 1967 comprehensive enrollment survey (this survey reported categories by sex and by attendance status independently), were applied to reported 1968 resident and extension postbaccalaureate enrollment in corresponding attendance status categories;

(3) probability estimates were applied to the two sets of estimates (one by sex, one by attendance status) to obtain estimates of resident graduate, extension graduate, and first-professional enrollment by sex and attendance status.

Undergraduate and first-professional, unreported in 1968

To estimate resident and extension degree-credit undergraduate and first-professional opening fall enrollment in 4-year institutions in 1968 (a revision because the 1967 comprehensive survey of enrollment was not available until 1970), estimated 1968 resident graduate enrollment was subtracted from the total of reported 1968 resident and extension degree-credit enrollment in 4-year institutions in each sex and attendance status category.

Degree-credit, unreported in 1969

To estimate resident and extension total opening fall enrollment by degree-credit status, attendance status and sex in 1969, percentages of resident and extension total enrollment by degree-credit status in each sex and attendance status category, calculated from the 1968 opening fall enrollment survey, were applied to reported 1969 resident and extension total enrollment categories by sex and attendance status.

Nondegree-credit, unreported in 1969

The estimation of resident and extension nondegree-credit enrollment by sex and attendance status in 1969 was a byproduct of the estimation of resident and extension degree-credit enrollment by sex and attendance status in 1969.

Resident graduate, unreported 1969

To estimate resident graduate enrollment by sex and attendance status in 1969, percentages of estimated resident and extension degree-credit total enrollment in 4-year institutions by resident graduate status in each sex and attendance status category, calculated from the 1968 opening fall enrollment, were applied to estimated 1969 resident and extension degree-credit total enrollment in 4-year institutions in corresponding sex and attendance status categories.

Undergraduate and first-professional, unreported in 1969

To estimate resident and extension degree-credit undergraduate and first-professional opening fall enrollment in 4-year institutions in 1969, estimated 1969 resident graduate enrollment was subtracted from estimated 1969 resident and extension, degree-credit enrollment in 4-year institutions in each control of institution, sex, and attendance status of student category. (In 2-year institutions resident and extension degree-credit undergraduate enrollment is the same as resident and extension degree-credit total enrollment.)

Faculty in institutions of higher education, 1966-67 to 1969-70 (tables 31-39)

Instructional staff positions, unreported in 1966-67

To obtain unadjusted estimates of total professional positions for each type and control of institution, the total number of professional persons reported in "Numbers and Characteristics of Employees in Institutions of Higher Education, Fall 1966" (all reports prior to 1966-67 were in terms of positions, not persons, except for total professional positions and persons) was multiplied by the ratio of total professional positions to total number of professional persons calculated from "Faculty and Other Professional Staff in Institutions of Higher Education, 1963-64." The ratio of this unadjusted estimate of total professional positions and the estimate of total professional staff positions used in the 1968 edition of "Projections of Educational Statistics" (which was developed by means of trends based on 1957-58 to 1963-64 data) was multiplied by the estimate of instructional staff positions for resident degree-credit courses from that edition to obtain the 1966-67 estimate of instructional staff positions for resident degree-credit courses.

Instructional staff positions, unreported in 1967-68

For each category by type and control of institution, the estimate of instructional staff positions used in the 1969 edition of "Projections of Educational Statistics" (which was based on trends including the estimate for 1966-67) was changed based on the total number of professional persons reported in "Numbers and Characteristics of Employees in Institutions of Higher Education, Fall 1967" using the same method used to obtain the 1966-67 estimate.

Instructional staff positions, unreported in 1968-69 and 1969-70

For each category by type and control of institution, instructional staff positions were estimated by extrapolation of the trend from 1959-60 to 1967-68.

Professional staff positions, unreported in 1966-67 to 1969-70

Other instructional staff positions and professional staff positions for administration and services and for organized research were estimated for each category of control and type of institution, by applying constant percentages (see appendix table A-3) to the estimates of instructional staff positions for resident degree-credit courses. These three categories of professional staff positions were added to the estimates of instructional staff positions for resident degree-credit courses to obtain estimates of total professional staff positions.

Population, composite, 1959-79 (table B-2)

Beginning with the 1969 edition of "Projections of Educational Statistics" the 18-year-old population used previously for projecting degrees by level was replaced by a composite population. This population is not only more representative of the actual ages of the recipients but tends to smooth out any rough year-to-year changes in population.

For this purpose, the percentage distributions of ages at graduation from college found by Laure M. Sharp in the 1958 survey "Two Years After the College Degree" were taken as base. These percentage distributions, kept separate for men and for women, were detruncated to avoid too many age classes and then restored to 100 percent by prorating, with the following result:

Age	Percent of graduates Men	Women
21	10	21
22	43	61
23	15	8
24	15	7
25	9	2
26	8	1

To obtain the composite population for a given year, these percentages were applied to the corresponding age-specific populations in that year and the products summed.

The timelags for each level were kept the same as in previous projections. These timelags were 2 years from the bachelor's degree to the master's degree, and 3 years from the master's degree to the doctorate.

A comparison of the fits obtained from equations based on the 18-year-old population and from equations based on the composite population showed that the latter produced a higher index of determination.

CLASSIFICATION OF DEGREES BY FIELD OF STUDY

[Individual fields listed in 1968-69 report of bachelor's and higher degrees conferred]

- I. Natural sciences and related professions
  - Mathematics[1]
    - Mathematics
    - Statistics
    - Computer science and systems analysis
      - Data processing
      - Computer science
      - Systems analysis
      - Computer science and systems analysis, other fields
      - Computer science and systems analysis, field not identified
  - Engineering[1]
  - Physical sciences[1]
    - Astronomy
    - Chemistry
      - Chemistry
      - Pharmaceutical chemistry
    - Earth sciences
      - Earth sciences, general
      - Geology
      - Geophysics (including seismology)
      - Oceanography
      - Earth sciences, other fields
    - Meteorology
    - Physics
    - Other physical sciences
      - Physical sciences, general
      - Metallurgy (excluding metallurgical engineering)
      - Physical sciences, other fields
      - Physical sciences, field not identified
  - Biological sciences[1]
    - Anatomy and histology
    - Bacteriology, virology, mycology, parasitology, and microbiology
    - Biochemistry
    - Biology, general
    - Botany
      - Botany, general
      - Plant pathology
      - Plant physiology
    - Entomology
    - Physiology
    - Zoology, general
    - Other biological sciences
      - Premedical, predental, and preveterinary sciences
      - Biophysics
      - Cytology
      - Ecology
      - Embryology
      - Genetics
      - Molecular biology[2]
      - Nutrition
      - Optometry (preprofessional degree)
      - Pathology (excluding plant pathology)
      - Pharmacology (excluding pharmacy)
      - Biological sciences, other fields
      - Biological sciences, fields not identified
  - Agriculture and forestry[1]
    - Animal Sciences
      - Animal, dairy, and poultry science
    - Other agriculture
      - Agriculture, general
      - Agriculture, business
      - Agronomy, field crops
      - Farm management (excluding agricultural economics)
      - Fish and game, or wildlife management
      - Food science
      - Horticulture (fruit and vegetable production)
      - International agriculture
      - Ornamental horticulture
      - Soil science
      - Agriculture, other fields
      - Agriculture, fireld not identified
      - Agricultural education
    - Forestry
  - Health professions[1]
    - Dentistry, D.D.S. and D.M.D. only
    - Medicine, M.D. only
    - Nursing and/or public health nursing
    - Optometry (excluding preprofessional degrees)
    - Osteopathy
    - Pharmacy
    - Public health
    - Veterinary medicine, D.V.M. only

Classification of degrees by field of study—Continued

- Other health professions
  - Chiropody or podiatry
  - Dental hygiene
  - Hospital administration
  - Medical technology
  - Occupational therapy
  - Physical therapy, physiotherapy
  - Radiologic technology
  - Clinical dental, medical, and veterinary medical sciences (advanced degrees only)
  - Health professions, other fields
  - Health professions, field not identified
- Science, general program (without major field)[1]

- II. Social sciences, humanities, and related professions
  - Fine arts[1]
    - Architecture
      - Architecture
      - City planning
    - Music
      - Music education
      - Music indcluding sacred music
    - Speech and dramatic arts
      - Speech and hearing impaired[2]
      - Speech and dramatic arts
    - Other fine and applied arts
      - Art education
      - Art, general
      - Fine and applied arts, other fields
      - Fine and applied arts, field not identified
  - English and journalism[1]
    - English
    - Journalism
  - Foreign languages[1]
    - Latin, classical Greek
    - French
    - German
    - Russian and other Slavic languages
      - Russian
      - Other Slavic languages
    - Spanish
    - Other languages and language programs
      - Linguistics (including phonetics and semantics)
      - Italian
      - Portuguese
      - Philology and literature of Romance languages
      - Other Germanic languages
      - Philology and literature of Germanic languages
      - Arabic
      - Chinese
      - Hebrew
      - Hindi and/or Urdu
      - Japanese
      - Foreign languages, other fields
      - Foreign languages, field not identified
      - Teaching English as a foreign language
      - Modern language (combination of 3 or more)
  - Psychology[1]
    - General psychology
    - Clinical psychology
    - Counseling psychology
    - Social psychology
    - Rehabilitation counselor training[3]
    - Educational psychology[4]
    - Psychology, other fields
    - Psychology, field not identified
  - Social sciences[1]
    - Anthropology
    - Economics
      - Agricultural economics
      - Economics
    - Geography
    - History
      - American studies, American civilization, American culture
      - History
    - International relations
    - Political science, government
    - Public administration
    - Sociology
    - Other social sciences
      - Social sciences, general
      - Area studies, regional studies
      - Folklore
      - Foreign service programs (consular and diplomatic service)
      - Industiral relations
      - Basic social sciences, otehr fields
      - Applied social sciences, other fields
      - Social sciences, field not identified
  - Education[1]
    - Physical education
      - Physical education (including non-teaching)
      - Health education
      - Recreation education
    - Industrial arts
      - Industrial arts education (nonvocational)
      - Trade and industrial education (vocational)
    - Other specialized teaching fields
      - Education of exceptional children
        - Education of the visually handicapped[2, 5]
        - Education of the mentally retarded
        - Education of the emotionally disturbed
        - Education of the deaf
        - Education of the crippled
        - Education of the gifted[2]
        - Special learning disabilities[2]
        - Education of the multiple handicapped[2]
        - Administration of special education[2]
        - Education of exceptional children, all other
      - Specialized teaching fields, other fields
    - General teaching fields
      - Nursery, kindergarten education

See footnotes at end of list.

Classification of degrees by field of study—Continued

  - Early childhood education
  - Elementary education
  - Secondary education (including junior high school)
  - Combined elementary and secondary education
  - Adult education
  - General teaching fields, other fields
- Other education fields
  - Education specialist
  - Educational administration, supervision, or finance
  - Counseling and guidance
  - Rehabilitation counselor training[6]
  - History philosophy, and theory of education, and comparative education
  - Curriculum and instruction
  - Education, general
  - Preprofessional bachelor's degrees
  - Other education fields
  - Education, field not identified
- Library science[1]
- Social work, social administration, social welfare[1]
- Business and commerce
  - Accounting[1]
  - Other business and commerce[1]
    - Finance, banking
    - Hotel and restaurent administration
    - Marketing
    - Real estate and insurance
    - Secretarial studies
    - Transportation
    - Business and commerce, other fields
    - Business and commerce, field not identified
    - Business education, commercial education
    - Distributive education, retail selling
- Other[1]
  - Philosophy and religion
    - Philosophy
    - Scholastic philosophy
    - Religious education, Bible
    - Other religous fields
      - Religion, liberal arts curriculum, nonsectarian
      - Religion, other fields
      - Religion, field not identified
- Home economics
  - Home economics education
  - Home economics, general
  - Child development, family relations
  - Clothing, textiles
  - Foods and nutrition
  - Institution management, institution administration
  - Home economics, other fields
  - Home economics, field not identified
- Law (L.L.B., J.D., or higher degrees)
- Military, naval, or air force science
  - Merchant marine (deck officer only)
  - Military, naval, or air force science
- Theology
  - Theology (first-professional degree)
  - Theology (master's and doctor's degrees)
- Miscellaneous and unclassified fields
  - Trade and industrial training
  - Arts general program (without major field)
  - Arts and sciences, general program
  - Interarea and interfields of study
  - Records management
  - Fields of study not listed
  - Field of study not identified

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[1] Projected in tables 23, 24 and 25.

[2] Added or revised item, 1968-69 report.

[3] See also "Education."

[4] Includes similar listing from education, 1968-69 report.

[5] Replaces two categories: Education of the partially sighted and Education of the blind.

[6] See also "Psychology."

CHANGES IN DEGREE-LEVEL DEFINITIONS

Prior to 1960-61	1960-61 through 1964-65	1965-66
	BACHELOR'S DEGREES	
Number of years of work not specified. First-professional degrees included.	Number of years or work specified as less than 5. First-professional degrees excluded.	Number of years of work specified as less than 6. First-professional degrees excluded.
	FIRST-PROFESSIONAL DEGREES	
Included with bachelor's degrees.	5 or more years of work required. Includes first-professional degrees such as degrees in dentistry, law, medicine, and theology. Includes master's degree such as degrees in business administration, hospital administration, law, library science, social work, and theology.	6 or more years of work required. Includes first-professional degrees such as degrees in dentistry, law, medicine, and theology. Excludes all master's degrees.
	MASTER'S DEGREES	
	Includes all master's degrees except some considered first-professional. Includes second-professional degrees below level of doctorate.	Includes all master's degrees including those considered first-professional prior to 1965-66. Includes second-professional degrees below level of doctorate.
	DOCTOR'S DEGREES	
Includes Ph.D. in any field and such degrees as doctor of education, doctor of judicial science, and doctor of public health (preceded by professional degree in medicine or sanitary engineering).	No change.	No change.

GLOSSARY

Courses

Adult education courses

Group instruction in courses which are designed for, or attended principally by, persons who have terminated their formal education.

Degree-credit courses

Courses which carry credit toward a bachelor's or higher degree.

Individual lessons

Lessons in music, art, speech, etc.

Nondegree-credit courses

Courses extending not more than 3 years beyond high school and designed to prepare students for immediate employment in an occupation or cluster of occupations at the technical and/or semiprofessional level (engineering-related or non-engineering-related), or at the craftsman-clerical level (artisans, skilled workers, and clerical workers).

Short courses

Courses that carry no credit toward a degree because of less than prescribed length.

Degrees

Bachelor's or first-level degrees

Lowest degree conferred by college, university, or professional school, requiring 4 or more years of academic work. For changes in Office of Education classification, see appendix A, "Changes in Degree-Level Definitions."

Doctor's degrees (except first-professional)

Highest academic degree conferred by a university; includes Ph.D. in any field; includes doctor of education, doctor of juridical science, and doctor of public health (preceded by professional degree in medicine or sanitary engineering).

First-professional degrees

Beginning 1965-66, Office of Education classification includes the following degrees only: Law (LL.B. or J.D. only); dentistry (D.D.S. or D.M.D. only); medicine (M.D. only); veterinary medicine (D.V.M. only); chiropody or podiatry (D.S.C. or D.P.); optometry (O.D.); osteopathy (D.O.); and theology (B.D. only). For changes in Office of Education classification, see appendix A, "Changes in Degree-Level Definitions."

Master's or second-level degrees

An academic degree higher than a bachelor's but lower than a doctor's. Beginning 1965-66, Office of Education classification includes all master's degrees. For changes in Office of Education classification, see appendix A, "Changes in Degree-Level Definitions."

Expenditures, elementary and secondary

Current expenditures, regular elementary and secondary day schools

Includes current expenditures for administration, instruction, plant operation and maintenance, fixed charges (retirement, social security, insurance, etc.), and other school services (pupil transportation, food services, health services, attendance services, and miscellaneous school services).

Current expenditures, total

Includes current expenditures for regular elementary and secondary day school programs and current expenditures for other school programs including summer schools, adult education, community colleges, and community services.

Expenditures, total

Includes total current expenditures for all programs, capital outlay, and interest on school debt.

Expenditures, general

Capital outlay

An expenditure for land or existing buildings, improvement of grounds, construction of buildings, additions to buildings, and initial or additional equipment. Includes replacement and rehabilitation and installment or lease payments (excluding interest) which have a terminal date and result in the acquisition of property.

Constant dollars (1969-70)

Expenditure data which have been adjusted by means of price and cost indexes to equal the purchasing power of 1969-70 dollars. This eliminates inflationary factors and allows direct comparison between years.

Current dollars

Expenditure data which have not been adjusted to compensate for inflation. (Projection of unadjusted expenditure data has been limited to 2 years.)

Current expenditures

Any expenditure except for capital outlay and debt service. If accounts are kept on the accrual basis, current expense includes total charges incurred, whether paid or unpaid. If accounts are kept on the cash basis, it includes only actual disbursements.

Debt service

Includes payment for retirement of debt and for use of long-term loans (not repaid in the year in which made).

Interest

Any payment for use of money.

Expenditures, higher education

Current expenditures, total

The term used for total expenditure from current funds less expenditures from current funds which are used for capital outlay (about 16 percent of total capital outlay is expended from current funds).

Current fund expenditures, total

Includes expenditures for auxiliary enterprises, organized research, related activities, student aid, and student education. Approximately 16 percent of total capital outlay by institutions of higher education is estimated to have been expended directly from current funds.

Auxiliary enterprises.—Expenditures for services to students, faculty, or other staff for which a fee is charged that is directly related to, but not necessarily equal to, the cost of service. For example, dormitories, food service, and student stores.

Organized research.—Expenditures for all sponsored research and all separately budgeted research. Excludes expenditures for research carried on as part of the regular instructional services departmental research which is included with expenditures for student education.

Related activities.—Expenditures for activities which exist to provide instructional or laboratory experience for students and which incidentally create goods or services that may be sold on the campus or to the general public. Expenditures are incurred in addition to those necessary solely for the educational benefit of the students. Expenditures from current funds which could not be reported under "student education" or "organized research" are here included under "related activities."

Student aid.—Expenditures for assistance to students through scholarships, fellowships, and prizes. Recipients are not required to repay, either through services or monies.

Student education.—Expenditures for those components of educational and general expenditures which are most closely related to instruction. Includes instruction and research which are part of regular instructional services (departmental research), extension and public service, libraries, physical plant operation and maintenance, general administration, and other sponsored activities.

Expenditures, total

Includes expenditures for capital outlay, debt service including interest, and total current expenditures.

Student charges

Student charges include charges for tuition, required fees, room, and board. Required fees are those for matriculation, laboratory, library, health, etc. They do not include books. Student charges as reported in this circular are based on full-time, resident (in-State or in-District) students.

Schools

Elementary schools

Schools with teaching organized by grades, composed of a span of grades not above grade 8.

Independent nursery and kindergarten schools

Schools that offer nursery and/or kindergarten instruction only.

Other schools

Other schools include residential schools for exceptional children (public and nonpublic), Federal schools for Indians, federally operated schools on Federal installations, and subcollegiate departments of public and private institutions of higher education.

Regular schools

Schools for normal children that satisfy the requirements of the State education laws and offer at least one grade beyond kindergarten.

Residential schools for exceptional children

Residential schools for the handicapped (outside the regular public and private school systems) include public and private residential schools for the deaf, blind, mentally deficient, epileptic, and delinquent. (Most handicapped children are in special classes within the regular public and private school system.)

Secondary schools

Schools with teaching organized by subject matter taught, composed of junior high and high schools.

Special schools

Special schools are schools not in the regular school system, such as trade schools or business colleges.

Students

Advanced-degree students

Students who have attained at least one standard degree and have been accepted as candidates for master's or doctor's degrees.

Extension students

Students who most commonly take instruction away from main campus; also students receiving on-campus instruction offered by an extension division.

First-professional students

See first-professional degrees.

First-time students

Freshmen not previously enrolled in any institutions of higher education.

Full-time students

Students enrolled in courses with credits equal to at least 75 percent of the normal full-time semester course load.

Full-time-equivalent students

The estimated number of full-time students equal to a given number of part-time students. (For degree-credit students the percentage of part-time equal to full-time is estimated at 33 percent; for nondegree-credit students, 28 percent.)

Graduate students

Students who have attained at least one standard degree and are or might be candidates for a master's or doctor's degree (except first-professional).

Occupational students

See nondegree-credit courses.

Postbaccalaureate students

Students who have attained at least one standard degree and are or might be candidates for a first-professional, master's, or doctor's degree.

Resident students (enrollment)

Students who attend classes on a main campus or a branch campus. Student's living quarters (whether on or off campus) and their legal domicile (whether in-State or out-of-State) are irrelevant.

Resident students (student charges)

Students with legal domicile in-State or in-District.

Unclassified students

Students who are not candidates for a degree, diploma, certificate, or equivalent award, although taking courses in regular classes with other students.

Undergraduate students

Degree-credit or nondegree-credit students who have not received formal recognition as having completed the prescribed degree-credit or nondegree-credit requirements of an accredited institution of higher education.

APPENDIX B

Statistical Tables

Table B-1.—School-age population (U.S. Census projection series B, C, D), ages 5, 6, 7, and 5-13 years: United States, 1959 to 1980[1]

[Ages as of October 1, populations in thousands]

Year (fall)	Age 5			Age 6			Age 7			Age 5-13		
	B	C	D	B	C	D	B	C	D	B	C	D
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1959 . .	....	3,897	....	....	3,789	....	....	3,721	....	....	32,074	....
1960 . .	....	3,964	....	....	3,887	....	....	3,811	....	....	33,664	....
1961 . .	....	4,012	....	....	3,972	....	....	3,894	....	....	33,461	....
1962 . .	....	4,100	....	....	4,020	....	....	3,979	....	....	34,111	....
1963 . .	....	4,119	....	....	4,107	....	....	4,026	....	....	34,781	....
1964 . .	....	4,132	....	....	4,125	....	....	4,113	....	....	35,446	....
1965 . .	....	4,168	....	....	4,138	....	....	4,131	....	....	36,048	....
1966 . .	....	4,248	....	....	4,174	....	....	4,144	....	....	36,631	....
1967 . .	....	4,163	....	....	4,256	....	....	4,182	....	....	37,017	....
1968 . .	....	4,095	....	....	4,171	....	....	4,263	....	....	37,243	....
1969 . .	....	4,005	....	....	4,102	....	....	4,178	....	....	37,288	....
							PROJECTED					
1970 . .	....	3,818	....	....	4,011	....	....	4,108	....	....	37,089	....
1971 . .	....	3,628	....	....	3,824	....	....	4,016	....	....	36,615	....
1972 . .	....	3,522	....	....	3,634	....	....	3,830	....	....	36,017	....
1973 . .	....	3,455	....	....	3,528	....	....	3,641	....	....	35,338	....
1974 . .	3,562	3,538	3,491	....	3,462	....	....	3,535	....	34,729	34,704	34,658
1975 . .	3,771	3,657	3,450	3,569	3,544	3,498	....	3,469	....	34,250	34,111	33,858
1976 . .	3,958	3,783	3,504	3,777	3,664	3,456	3,575	3,552	3,504	34,043	33,734	33,197
1977 . .	4,146	3,909	3,588	3,964	3,790	3,511	3,784	3,671	3,463	34,096	33,544	32,693
1978 . .	4,338	4,035	3,671	4,152	3,914	3,595	3,971	3,795	3,518	34,430	33,575	32,361
1979 . .	4,534	4,163	3,752	4,344	4,040	3,677	4,159	3,921	3,601	35,148	33,924	32,294
1980 . .	4,730	4,298	3,836	4,539	4,170	3,759	4,350	4,048	3,684	36,248	34,593	32,505

[1] In projecting the number of children to be born, the Census Bureau uses the cohort-fertility method and several different assumptions as to completed fertility of women in the childbearing ages (15-45 years). These different series of population projections correspond roughly to the following assumptions:

Series B average completed fertility rate of 3,100 children per 1,000 women presumes a modest drop from the levels of fertility experienced in the midfifties;

Series D average completed fertility rate of 2,450 children per 1,000 women presumes a substantial drop from the levels of fertility experienced in the midfifties;

Series C fertility rate of 2,775 children per 1,000 women is an average of rates B and D.

For a detailed explanation of the methods used by the Census and the implications of each assumption, see the following source, pages 1-49; U.S. Department of Commerce, Bureau of the Census, "Current Population Reports, Population Estimates: Projections of the Population of the United States, by Age, Sex, and Color to 1990, with Extensions of Population by Age and Sex to 2,015," Series P-25, No. 381, December 18, 1967.

SOURCE: Office of Education estimates are based on Bureau of the Census population data by age as of July 1. Population data used are consistent with projection data in U.S. Department of Commerce, Bureau of the Census "Current Population Reports: Population Estimates and Projections: Projections of the Population of the United States, by Age and Sex (Interim Revisions): 1970 to 2020," Series P-25, No. 448, August 6, 1970.

Table B-2.—High school- and college-age population: United States, 1959 to 1980[1]

[Ages as of October 1, populations in thousands]

	14-17	18		18-21		Composite population[2]	
	Total	Men	Women	Men	Women	Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959	11,135	1,301	1,273	4,668	4,612	1,078	1,093
1960	11,411	1,411	1,378	4,897	4,827	1,103	1,121
1961	12,199	1,432	1,400	5,234	5,145	1,124	1,141
1962	12,951	1,405	1,371	5,480	5,377	1,153	1,174
1963	13,693	1,466	1,429	5,652	5,543	1,211	1,245
1964	14,215	1,698	1,650	5,817	5,702	1,293	1,348
1965	14,164	1,831	1,774	6,224	6,085	1,366	1,414
1966	14,373	1,790	1,734	6,621	6,444	1,387	1,392
1967	14,720	1,790	1,734	6,995	6,803	1,422	1,422
1968	15,146	1,818	1,760	7,252	7,049	1,514	1,559
1969	15,553	1,870	1,812	7,216	7,020	1,673	1,750
				PROJECTED			
1970	15,899	1,928	1,872	7,322	7,124	1,701	1,734
1971	16,205	1,980	1,926	7,493	7,296	1,750	1,752
1972	16,445	2,025	1,966	7,701	7,507	1,783	1,766
1973	16,614	2,060	1,998	7,906	7,708	1,830	1,809
1974	16,772	2,094	2,033	8,081	7,879	1,861	1,859
1975	16,918	2,120	2,059	8,238	8,028	1,908	1,916
1976	16,964	2,128	2,068	8,361	8,146	1,953	1,959
1977	16,922	2,141	2,079	8,441	8,232	1,999	1,997
1978	16,758	2,176	2,103	8,522	8,309	2,037	2,030
1979	16,327	2,178	2,098	8,606	8,372	2,076	2,065
1980	15,791	2,139	2,059	8,638	8,385	2,098	2,079

[1] All ages are in completed years except age 18, which has been calculated to nearest birthday. No fertility assumptions are used in this table because the persons included are already born.

[2] The composite population (used for projecting degrees) was derived by (1) prorating to 100 percent the detruncated percentage distribution of the ages of recipients of bachelor's degrees which had been found by Laure M. Sharp in the 1958 survey "Two Years After the College Degree"; and (2) applying these percentages to corresponding age groups which were consistent with the other populations shown in this table. For further estimating details, see appendix A, "Estimation Methods."

SOURCE: Office of Education estimates are based on Bureau of the Census population data by age as of July 1. Population data used are consistent with projection data in U.S. Department of Commerce, Bureau of the Census "Current Population Reports: Population Estimates and Projections: Projections of the Population of the United States, by Age and Sex (Interim Revisions): 1970 to 2020," Series P-25, No. 448, August 6, 1970.

Table B-3.—Ratios of population series B and population series D to population series C, by age group: United States, 1972 to 1980[1]

[Projections based on series C may be converted to series B and D projections
by multiplying the series C projection by the ratio shown in this table
for the corresponding age, series, and year]

Year (fall)	Age group 5-17		Age group 5-13		Age group 14-17	
	For converting series C to series B	For converting series C to series D	For converting series C to series B	For converting series C to series D	For converting series C to series B	For converting series C to series D
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1972 . . .	1.00	1.00	1.00	1.00	1.00	1.00
1973 . . .	1.00	1.00	1.00	1.00	1.00	1.00
1974 . . .	1.00	1.00	1.00	1.00	1.00	1.00
1975 . . .	1.00	.99	1.00	.99	1.00	1.00
1976 . . .	1.01	.99	1.01	.98	1.00	1.00
1977 . . .	1.01	.98	1.02	.97	1.00	1.00
1978 . . .	1.02	.98	1.03	.96	1.00	1.00
1979 . . .	1.02	.97	1.04	.95	1.00	1.00
1980 . . .	1.03	.96	1.05	.94	1.00	1.00

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[1] For definitions of series B, C, and D, and for sources of population data, see appendix B, table B-2.

Table B-4.—Enrollment in grades K-8 and 9-12 of regular day schools, with projections based on U.S. Census population projection series B, by institutional control: United States, fall 1959 to 1979[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K-12	K-8	9-12	K-12	K-8[3]	9-12[3]	K-12	K-8	9-12
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1959	40,782	31,511	9,271	35,182	26,911	8,271	5,600	4,600	1,000
1960	42,181	32,492	9,689	36,281	27,692	8,589	5,900	4,800	[4]1,100
1961	43,364	32,895	10,469	37,464	28,095	9,369	5,900	[4]4,800	[4]1,100
1962	44,849	33,537	11,312	38,749	28,637	10,112	6,100	4,900	1,200
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	[4]1,300
1964	47,716	35,025	12,691	41,416	30,025	[illegible]	6,300	5,000	[4]1,300
1965	48,473	35,463	13,010	42,173	30,563	[illegible]	6,300	[4]4,900	[4]1,400
1966	49,339	36,045	13,294	43,039	31,145	11,894	6,300	4,900	1,400
1967	49,892	36,242	13,650	43,892	31,642	12,250	6,000	4,600	1,400
1968	50,744	36,626	14,118	44,944	32,226	12,718	5,800	[4]4,400	[4]1,400
1969	51,319	36,897	14,422	45,619	32,597	13,022	5,700	4,300	1,400
				PROJECTED[5]					
1970	51,600	36,800	14,800	46,000	32,600	13,400	5,600	4,200	1,400
1971	51,600	36,400	15,200	46,100	32,300	13,800	5,500	4,100	1,400
1972	51,500	35,900	15,600	46,100	31,900	14,200	5,400	4,000	1,400
1973	51,300	35,400	16,000	45,900	31,400	14,600	5,400	4,000	1,400
1974	51,400	35,100	16,300	45,800	30,900	14,900	5,600	4,200	1,400
1975	51,100	34,600	16,500	45,600	30,500	15,100	5,500	4,100	1,400
1976	51,100	34,400	16,700	45,700	30,400	15,300	5,400	4,000	1,400
1977	51,300	34,600	16,700	45,900	30,600	15,300	5,400	4,000	1,400
1978	51,700	35,000	16,700	46,300	31,000	15,300	5,400	4,000	1,400
1979	52,100	35,700	16,400	46,700	31,700	15,000	5,400	4,000	1,400

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Fall enrollment in public schools not reported by grade prior to 1962; grade breakdown for years 1959 through 1961 estimated from school year enrollment.

[4] Actual data from Office of Education surveys.

[5] The projection of fall enrollment in regular day schools is based on the following assumptions: (1) Enrollment rates of the 5- and 6-year-old population in public school kindergarten and grade 1 will follow the 1959 to 1969 trends; (2) the retention rates of public school grade 7 from grade 6 will follow the 1959 to 1969 trend with the restriction that the rates cannot exceed 104 percent; (3) the retention rates of public school grade 9 from grade 8 will follow the 1959 to 1969 trend with the restriction that the rates cannot exceed 105 percent; (4) the retention rates of all other public school grades will follow the 1959 to 1969 trends with the restriction that they cannot exceed 100 percent; and (5) enrollment in grades K-8 in regular nonpublic day schools will decrease to 1972 and then remain constant to 1979; grades 9-12 will remain constant at the 1968 level.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of Public Schools," fall 1964 through 1969; (2) "Enrollment, Teachers, and Schoolhousing," fall 1959 through 1963; (3) "Statistics of State School Systems," 1959-60 and 1961-62; (4) prepublication data from "Statistics of Nonpublic Elementary and Secondary Schools, 1968-69"; (5) "Statistics of Nonpublic Elementary and Secondary Schools, 1965-66"; (6) "Nonpublic School Enrollment in Grades 9-12, Fall 1964, and Graduates, 1963-64"; (7) "Statistics of

Nonpublic Elementary Schools, 1961-62"; and (8) "Statistics of Nonpublic Secondary Schools, 1960-61."

The population projections as of October 1, of 5- and 6-year-olds on which the enrollment projections in kindergarten and grade 1 are based, are consistent with series B population projections in U.S. Department of Commerce, Bureau of the Census, "Current Population Reports," Series P-25, No. 448, August 6, 1970. The series B population projections with definitions of series B are shown in appendix B, table B-1.

Table B-5.—Enrollment in grades K-8 and 9-12 of regular day schools, with projections based on U.S. Census population projection series D, by institutional control: United States, fall 1959 to 1979[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K-12	K-8	9-12	K-12	K-8[3]	9-12[3]	K-12	K-8	9-12
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1959	40,782	31,511	9,271	35,182	26,911	8,271	5,600	4,600	1,000
1960	42,181	32,492	9,689	36,281	27,692	8,589	5,900	4,800	[4]1,100
1961	43,364	32,895	10,469	37,464	28,095	9,369	5,900	[4]4,800	[4]1,100
1962	44,849	33,537	11,312	38,749	28,637	10,112	6,100	4,900	1,200
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	[4]1,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	[4]1,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	[4]4,900	[4]1,400
1966	49,339	36,045	13,294	43,039	31,145	11,894	6,300	4,900	1,400
1967	49,892	36,242	13,650	43,892	31,642	12,250	6,000	4,600	1,400
1968	50,744	36,626	14,118	44,944	32,226	12,718	5,800	[4]4,400	[4]1,400
1969	51,319	36,897	14,422	45,619	32,597	13,022	5,700	4,300	1,400
				PROJECTED[5]					
1970	51,600	36,800	14,800	46,000	32,600	13,400	5,600	4,200	1,400
1971	51,600	36,400	15,200	46,100	32,300	13,800	5,500	4,100	1,400
1972	51,500	35,900	15,600	46,100	31,900	14,200	5,400	4,000	1,400
1973	51,300	35,400	16,000	45,900	31,400	14,600	5,400	4,000	1,400
1974	51,100	34,800	16,300	45,700	30,800	14,900	5,400	4,000	1,400
1975	50,700	34,200	16,500	45,300	30,200	15,100	5,400	4,000	1,400
1976	50,400	33,700	16,700	45,000	29,700	15,300	5,400	4,000	1,400
1977	50,100	33,300	16,700	44,600	29,300	15,300	5,400	4,000	1,400
1978	49,800	33,100	16,700	44,400	29,100	15,300	5,400	4,000	1,400
1979	49,600	33,100	16,400	44,100	29,100	15,000	5,400	4,000	1,400

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Fall enrollment in public schools not reported by grade prior to 1962; grade breakdown for years 1959 through 1961 estimated from school year enrollment.

[4] Actual data from Office of Education surveys.

[5] The projection of fall enrollment in regular day schools is based on the following assumptions: (1) Enrollment rates of the 5- and 6-year-old population in public school kindergarten and grade 1 will follow the 1959 to 1969 trends; (2) the retention rates of public school grade 7 from grade 6 will follow the 1959 to 1969 trend with the restriction that the rates cannot exceed 104 percent; (3) the retention rates of public school grade 9 from grade 8 will follow the 1959 to 1969 trend with the restriction that the rates cannot exceed 105 percent; (4) the retention rates of all other public school grades will follow the 1959 to 1969 trends with the restriction that they cannot exceed 100 percent; and (5) enrollment in grades K-8 in regular nonpublic day schools will decrease to 1972 and then remain constant to 1979; grades 9-12 will remain constant at the 1968 level.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of Public Schools," fall 1964 through 1969; (2) "Enrollment, Teachers, and Schoolhousing," fall 1959 through 1963; (3) "Statistics of State School Systems," 1959-60 and 1961-62; (4) prepublication data from "Statistics of Nonpublic Elementary and Secondary Schools, 1968-69"; (5) "Statistics of Nonpublic Elementary and Secondary Schools, 1965-66"; (6) "Nonpublic School Enrollment in Grades 9-12, Fall 1964, and Graduates, 1963-64"; (7) "Statistics of Nonpublic Elementary Schools, 1961-62"; and (8) "Statistics of Nonpublic Secondary Schools, 1960-61."

The population projections as of October 1, of 5- and 6-year-olds on which the enrollment projections in kindergarten and grade 1 are based, are consistent with series D population projections in U.S. Department of Commerce, Bureau of the Census, "Current Population Reports," Series P-25, No. 448, August 6, 1970. The series D population projections with definitions of series D are shown in appendix B, table B-1.

Table B-6.—Total degree-credit enrollment in all institutions of higher education, by sex: United States and outlying areas, fall 1959 to 1979[1]

[Resident and extension opening fall enrollment]

Year (fall)	Degree-credit enrollment		
	Total	Men	Women
(1)	(2)	(3)	(4)
1959	3,402,297	2,173,797	1,228,500
1960	3,610,007	2,270,640	1,339,367
1961	3,891,230	2,423,987	1,467,243
1962	4,206,672	2,603,072	1,603,600
1963	4,528,516	2,789,527	1,738,989
1964	4,987,867	3,051,761	1,936,106
1965	5,570,271	3,396,574	2,173,697
[2]1966	5,930,000	3,577,000	2,353,000
[2]1967	6,396,000	3,824,000	2,572,000
1968	6,983,093	4,145,523	2,837,570
[2]1969	7,356,000	4,344,000	3,012,000
	PROJECTED[3]		
1970	7,664,000	4,500,000	3,164,000
1971	8,049,000	4,700,000	3,349,000
1972	8,486,000	4,928,000	3,558,000
1973	8,928,000	5,159,000	3,769,000
1974	9,345,000	5,375,000	3,970,000
1975	9,750,000	5,584,000	4,166,000
1976	10,122,000	5,773,000	4,349,000
1977	10,454,000	5,935,000	4,519,000
1978	10,784,000	6,099,000	4,685,000
1979	11,115,000	6,269,000	4,846,000

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[1] Beginning in 1966, some students previously reported as nondegree-credit are included with degree-credit enrollment.

[2] The breakdown between degree-credit and nondegree-credit enrollment is estimated. See appendix A, "Estimation Methods."

The estimates for 1966 and 1967 differ from the estimates published in the 1968 edition of "Projections of Educational Statistics" because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[3] The projection of total degree-credit enrollment in all institutions by sex is based on the assumption that enrollment in these institutions, expressed as a percentage of population aged 18-21 years, will follow the 1959 to 1969 trend to 1979 in each enrollment category.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A-1.

NOTE: Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education circulars: (1) "Opening (Fall) Enrollment in Higher Education," annually, 1959 through 1969; and (2) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967.

Population on which projections are based is shown in appendix B, table B-2.

Table B-7.—Earned degrees, by level and sex of student: United States and outlying areas, 1959-60 to 1979-80

Year	Bachelor's and first-professional degrees[1]			Master's degrees[1]			Doctor's degrees (except first-professional)[2]		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1959-60	391,608	254,435	137,173	77,778	52,006	25,772	9,829	8,801	1,028
1960-61	398,248	254,658	143,590	81,805	55,400	26,405	10,575	9,463	1,112
1961-62	416,886	260,858	156,028	88,488	59,862	28,626	11,622	10,377	1,245
1962-63	446,453	273,300	173,153	95,557	64,394	31,163	12,822	11,448	1,374
1963-64	497,597	298,262	199,335	105,629	70,563	35,066	14,490	12,955	1,535
1964-65	533,925	318,088	215,837	117,200	77,793	39,407	16,467	14,692	1,775
1965-66	555,613	331,122	224,491	140,772	93,184	47,588	18,239	16,121	2,118
1966-67	594,862	355,300	239,562	157,892	103,179	54,713	20,621	18,164	2,457
1967-68	671,591	392,830	278,761	177,150	113,749	63,401	23,091	20,185	2,906
1968-69	769,810	447,001	322,809	194,414	121,881	72,533	26,189	22,753	3,436
[3]1969-70	789,000	458,000	331,000	219,900	135,700	84,200	29,300	25,500	3,800
				PROJECTED[4]					
1970-71	822,000	475,000	347,000	256,300	156,400	99,900	31,300	27,300	4,000
1971-72	849,000	488,000	361,000	270,100	165,700	104,400	33,800	29,500	4,300
1972-73	887,000	505,000	382,000	288,400	177,300	111,100	37,900	33,000	4,900
1973-74	923,000	518,000	405,000	305,600	187,800	117,800	44,000	38,200	5,800
1974-75	967,000	536,000	431,000	326,000	199,800	126,400	46,600	40,600	6,000
1975-76	1,007,000	553,000	454,000	346,000	210,500	136,100	50,000	43,600	6,300
1976-77	1,046,000	570,000	476,000	369,800	223,200	146,600	53,000	46,300	6,600
1977-78	1,084,000	586,000	498,000	392,400	236,100	156,300	56,600	49,500	7,100
1978-79	1,122,000	602,000	520,000	415,500	249,500	166,000	59,800	52,300	7,500
1979-80	1,143,000	612,000	531,000	433,900	258,500	175,400	62,500	54,600	8,000

[1] Beginning in 1965-66, all master's degrees, whether considered first-professional or not, are reported as master's degrees rather than first-professional degrees.

The following specified degrees are reported as first-professional: Dentistry (D.D.S. or D.M.D.), law (LL.B. or J.D.), medicine (M.D.), theology (B.D.), veterinary medicine (D.V.M.), chiropody or podiatry (D.S.C. or D.P.), optometry (O.D.), and osteopathy (D.O.).

[2] Doctor's degrees include the Ph.D. in any field as well as such degrees as doctor of education, doctor of juridical science, and doctor of public health (preceded by professional degree in medicine or sanitary engineering). They exclude degrees defined as first-professional, such as doctor of jurisprudence, doctor of medicine, doctor of dental surgery, doctor of veterinary medicine, and doctor of divinity.

[3] Estimated.

[4] The projection of earned degrees is based on the assumption that the percentage of degrees to population for each level and sex will continue the 1959-60 to 1968-69 trends. (A composite population representative of age at graduation was used as the base for projecting, with a timelag of 2 years from the bachelor's degree to the master's degree; and of 3 additional years from the master's degree to the doctor's degree. For population used and estimation details, see Appendix B, table B-2.)

For further methodological details, see appendix A, table A-2.

NOTE: Because of rounding, detail may not add to totals.

SOURCES: Degree data from U.S. Department of Health, Education, and Welfare, Office of Education publications on "Earned Degrees Conferred by Institutions of Higher Education," 1959-60 through 1968-69.

Table B-8.—Constant dollar index

[1969-70 = 100]

July to June	Consumer price index[1]	Construction cost index[2]
1959-60	77.791	65.914
1960-61	78.804	67.489
1961-62	79.602	69.065
1962-63	80.565	70.956
1963-64	81.698	73.057
1964-65	82.750	74.948
1965-66	84.542	77.573
1966-67	87.163	81.880
1967-68	90.064	86.239
1968-69	94.402	93.329
1969-70	100.00	100.00
	ESTIMATED[3]	
1970-71	103.702	105.536
1971-72	107.405	111.072

[1] The monthly indexes were averaged on a July to June basis to correspond with the school year and converted to 1969-70 = 100. The 1957-59 = 100 index number for 1969-70 was 131.592.

[2] The monthly indexes were averaged on a July to June basis to correspond with the school year and converted to 1969-70 = 100. The 1957-59 = 100 index number for 1969-70 was 158.667.

[3] Estimated on 5-year trend, 1965-66 through 1969-70, projected 10 years and fitted to the 1969-70 index number.

SOURCES: The Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, and the American Appraisal Company Construction Cost Index, published in Construction Review by the U.S. Department of Commerce.

Table B-9.—Estimated receipts by regular and "other" educational institutions, by level, by control, and by source: United States, 1959-60 to 1967-68[1]

Source of funds, by control and level	1959-60	1961-62	1963-64	1965-66	1967-68	1959-60	1961-62	1963-64	1965-66	1967-68
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Amount In billions of current dollars					Percent				
All levels:										
Total, public and nonpublic	$25.4	$30.7	$36.7	$46.9	$58.5	100.0	100.0	100.0	100.0	100.0
Federal	1.8	2.5	3.4	5.3	6.9	7.1	8.1	9.3	11.3	11.8
State	7.5	9.1	10.8	13.7	17.3	29.5	29.7	29.4	29.2	29.6
Local	9.9	11.3	12.8	15.5	18.9	39.0	36.8	34.9	33.1	32.3
All other	6.2	7.8	9.7	12.4	15.4	24.4	25.4	26.4	26.4	26.3
Total, public	20.4	24.1	28.5	36.9	46.8	100.0	100.0	100.0	100.0	100.0
Federal	1.3	1.7	2.2	3.9	5.2	6.4	7.1	7.7	10.6	11.1
State	7.5	9.0	10.7	13.6	17.2	36.8	37.3	37.6	36.8	36.8
Local	9.9	11.3	12.8	15.5	18.9	48.5	46.9	44.9	42.0	40.4
All other	1.7	2.1	2.8	3.9	5.5	8.3	8.7	9.8	10.6	11.7
Total, nonpublic	5.0	6.6	8.2	10.0	11.7	100.0	100.0	100.0	100.0	100.0
Federal	.5	.8	1.2	1.4	1.7	10.0	12.1	14.6	14.0	14.5
State	([2])	.1	.1	.1	.1	([3])	1.5	1.2	1.0	.9
Local	([2])	([2])	([2])	([2])	([2])	([3])	([3])	([3])	([3])	([3])
All other	4.5	5.7	6.9	8.5	9.9	90.0	86.4	84.2	85.0	84.6
Elementary and secondary:										
Total, public and nonpublic	18.4	21.6	24.8	31.0	37.8	100.0	100.0	100.0	100.0	100.0
Federal	.7	.9	1.1	2.2	3.0	3.8	4.2	4.4	7.1	7.9
State	5.8	6.8	8.0	9.9	12.3	31.5	31.5	32.3	31.9	32.6
Local	9.7	11.1	12.5	15.1	18.3	52.7	51.4	50.4	48.7	48.4
All other	2.2	2.8	3.2	3.8	4.2	12.0	12.9	12.9	12.3	11.1

Total, public	16.3	18.9	21.7	27.3	33.7	100.0	100.0	100.0	100.0	100.0
Federal	.7	.9	1.1	2.2	3.0	4.6	5.1	5.0	8.0	8.9
State	5.8	6.8	8.0	9.9	12.3	35.4	35.9	37.2	36.3	36.5
Local	9.7	11.1	12.5	15.1	18.3	59.6	58.6	57.4	55.2	54.2
All other	.1	.1	.1	.1	.1	.4	.4	.4	.5	.4
Total, nonpublic	2.1	2.7	3.1	3.7	4.1	100.0	100.0	100.0	100.0	100.0
Federal	....	....	....	....	....	....	....	....	....	....
State	....	....	....	....	....	....	....	....	....	....
Local	....	....	....	....	....	....	....	....	....	....
All other	2.1	2.7	3.1	3.7	4.1	100.0	100.0	100.0	100.0	100.0
Institutions of higher education:										
Total, public and nonpublic	7.0	9.1	11.9	15.9	20.7	100.0	100.0	100.0	100.0	100.0
Federal	1.1	1.6	2.3	3.1	3.9	15.7	17.6	19.3	19.5	18.8
State	1.7	2.3	2.8	3.8	5.0	24.3	25.3	23.6	23.9	24.2
Local	.2	.2	.3	.4	.6	2.9	2.2	2.5	2.5	2.9
All other	4.0	5.0	6.5	8.6	11.2	57.1	54.9	54.6	54.1	54.1
Total, public	4.1	5.2	6.8	9.6	13.1	100.0	100.0	100.0	100.0	100.0
Federal	.6	.8	1.1	1.7	2.2	14.9	16.0	16.9	17.6	17.1
State	1.7	2.2	2.7	3.7	4.9	41.4	41.2	39.7	38.4	37.6
Local	.2	.2	.3	.4	.6	4.6	4.2	4.3	4.1	4.5
All other	1.6	2.0	2.7	3.8	5.4	39.1	38.6	39.1	39.9	40.8
Total, nonpublic	2.9	3.9	5.1	6.3	7.6	100.0	100.0	100.0	100.0	100.0
Federal	.5	.8	1.2	1.4	1.7	17.0	20.5	23.1	22.1	22.6
State	(2)	.1	.1	.1	.1	1.5	1.5	1.3	1.5	1.2
Local	(2)	(2)	(2)	(2)	(2)	.2	.2	.2	.1	.3
All other	2.4	3.0	3.8	4.8	5.8	81.3	77.8	75.4	76.3	75.9

[1] Includes estimates for "other" elementary and secondary schools such as residential schools for exceptional children, Federal schools for Indians, and federally operated elementary and secondary schools on posts. The annual receipts of "other" elementary and secondary schools were estimated as follows:

Years	Public	Nonpublic
	Millions	
1959-60	$100	Less than $50 million
1961-62	200	Less than $50 million
1963-64 to 1967-68	200	$100 million

[2] Less than $50 million.

[3] Less then 0.05 percent.

NOTE: Data are for 50 States and the District of Columbia for all years. Receipts include revenue and nonrevenue receipts, current and plant-fund receipts, proceeds of loans, less transfers of funds which would result in duplication, and less repayment of loans. All receipts and deductions concerning loans are included in "all other" sources. Deduction of transfers was made from data in "all other" sources.

SOURCES: Data for the table above were based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Statistics of State School Systems," 1959-60, 1961-62, 1963-64, 1965-66, and 1967-68; (2) "Statistics of Public Schools," fall 1964, 1965, 1966, 1967, 1968, and 1969; (3) "Financial Statistics of Institutions of Higher Education," 1959-60, 1961-62, 1963-64, 1965-66, 1966-67, and 1967-68; (4) "Digest of Educational Statistics," 1969; and (5) unpublished data in the U.S. Office of Education.

Table B-10.—Federal funds for education and related activities: Estimated obligations for fiscal years 1962 to 1967; and estimated outlay for fiscal years 1968 to 1971

[In thousands of dollars]

Type of support, level, and program area	New obligational authority						Outlay			
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	PART I. Federal Funds Supporting Education in Educational Institutions									
Total grants and loans	**$2,173,700**	**$2,507,600**	**$2,749,300**	**$3,908,700**	**$6,779,578**	**$8,352,866**	**$7,804,454**	**$8,028,508**	**$9,273,124**	**$10,236,990**
Grants, total	**1,853,200**	**2,111,700**	**2,350,500**	**3,379,600**	**6,167,878**	**7,611,283**	**7,201,173**	**7,496,281**	**8,634,745**	**9,632,606**
Elementary-secondary education	555,100	600,400	666,300	942,900	2,480,078	3,037,637	2,967,004	2,838,439	2,964,315	3,088,345
School assistance in federally affected areas	304,900	330,300	323,100	407,600	433,900	469,137	506,372	397,581	396,960	340,326
Economic opportunity programs[1]	53,000	60,900	67,000	123,500	404,300	721,257	628,533	552,434	568,058	570,405
National Defense Education Act—equipment, guidance[2]	59,300	58,700	92,900	90,900	104,400	109,200	109,009	74,316	2,346	2,093
Supporting services[3]	4,300	4,700	5,200	6,500	173,100	273,551	280,481	290,107	251,428	220,672
Assistance for educationally deprived children[4]	. . .	. . .	. . .	. . .	959,000	1,057,455	1,056,983	1,096,106	1,183,604	1,300,359
Teacher Corps	4,000	6,800	5,100	. . .	6,500	11,324	16,019	19,358	24,243	29,788
Vocational education	26,400	26,300	24,900	127,700	184,678	194,636	185,224	152,441	172,080	187,107
Dependents' schools abroad	40,500	45,300	61,500	80,500	86,100	87,533	68,220	108,589	128,610	134,864
Public lands revenue for schools	43,500	44,600	48,600	51,500	54,100	50,173	52,294	66,112	83,893	89,713
Assistance in special areas[5]	14,800	17,700	32,600	50,200	68,800	56,969	58,286	71,118	140,324	196,613
Veterans' education	. . .	. . .	. . .	. . .	. . .	1,294	3,200	4,924	7,116	8,481
Other[6]	4,400	5,100	5,400	4,500	5,200	5,108	2,383	5,353	5,653	7,924

See footnotes at end of table.

Table B-10.—Federal funds for education and related activities: Estimated obligations for fiscal years 1962 to 1967; and estimated outlay for fiscal years 1968 to 1971—Continued

[In thousands of dollars]

Type of support, level, and program area	New obligational authority						Outlay			
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Higher education	$ 1,210,300	$1,397,800	$1,480,400	$2,052,600	$2,830,400	$3,634,494	$3,262,988	$3,369,489	$ 4,029,327	$4,328,278
Basic research in U.S. educational institutions proper[7]	602,900	691,600	698,600	784,900	940,300	1,032,823	1,061,818	1,073,547	1,149,671	[8] 1,186,000
Research facilities[7]	121,800	157,900	133,500	191,700	194,000	250,568	199,790	237,186	244,286	[8] 252,000
Training grants	196,000	234,600	261,200	282,400	365,500	363,608	381,116	404,990	500,145	506,375
Fellowships and traineeships	103,900	143,000	181,800	196,900	264,900	350,162	320,303	247,840	256,461	256,647
Facilities and equipment	37,100	41,000	56,100	384,100	668,900	822,203	549,382	482,387	565,295	547,160
Other institutional support	33,000	43,400	69,500	93,400	163,800	169,925	139,637	173,066	245,797	311.069
Other student assistance	103,900	69,900	62,300	100,400	214,200	590,586	608,883	740,498	1,060,438	1,259,688
Other higher education assistance	11,700	16,400	17,400	18,800	18,800	54,619	2,059	9,975	7,234	9,339
Vocational-technical and continuing education (not classifiable by level)	87,800	113,500	203,800	384,100	857,400	939,152	971,181	1,288,353	1,641,103	2,215,983
Vocational-technical education[9]	27,700	74,700	161,900	291,900	432,800	470,752	418,345	406,000	452,000	1,384,000
Economic opportunity programs[10]	6,900	8,000	9,100	72,400	385,100	345,823	430,771	589,481	769,885	334,047
Veterans' education	49,900	29,000	25,100	10,300	6,300	54,000	79,645	212,970	320,608	385,355
General continuing education[11]	400	400	1,900	1,500	19,200	29,200	28,701	60,364	66,229	76,067
Training State and local personnel	2,900	1,400	5,800	8,000	14,000	28,649	11,152	18,775	27,506	27,565
Other[12]	...	...	...	...	...	10,728	2,567	763	4,875	8,949
Loans, total (higher education)	320,500	395,900	398,800	529,100	611,700	741,583	603,281	532,227	638,379	604,384

Student loan program, National Defense Education Act[13]	74,600	90,700	111,300	160,100	235,900	237,954	226,303	259,641	310,592	331,581
College facilities loans[14]	245,900	305,200	287,500	369,000	375,800	503,629	376,978	272,586	327,787	272,803
Total	**2,764,700**	**2,923,300**	**3,225,600**	**3,699,500**	**3,877,958**	**3,891,538**	**3,564,723**	**3,245,763**	**3,483,777**	**3,685,325**
Part II. Other Federal Funds for Education and Related Activities										
Applied research and development[7]	754,700	805,700	906,300	952,300	1,026,600	1,088,150	1,142,350	1,188,349	1,253,083	[8]1,293,000
School lunch and milk programs	366,900	379,300	411,700	507,500	421,900	448,005	543,845	597,700	651,100	680,800
Training of Federal personnel	1,177,500	1,279,600	1,370,400	1,577,900	1,706,700	1,537,399	1,138,333	639,853	687,250	715,187
Military academies	74,000	75,700	77,400	105,100	137,200	([15])	([15])	([15])	([15])	([15])
Professional training, military	1,072,000	1,172,000	1,245,000	1,399,100	1,487,900	1,442,950	1,065,069	545,573	581,107	602,534
Civilian education and training in non-Federal facilities	31,500	31,900	48,000	73,700	81,600	94,449	73,264	94,280	106,143	112,653
Library services	22,200	23,900	25,300	82,900	86,300	141,381	136,099	186,124	190,757	188,917
Grants to public libraries	6,900	7,400	7,500	54,900	55,000	76,000	62,017	62,794	49,867	35,940
National library services[16]	15,300	16,500	17,800	28,000	31,300	65,381	74,082	123,330	140,890	152,977
International education	109,100	116,100	130,000	178,700	232,658	326,742	272,008	278,135	268,155	292,255
Educational exchange program	28,100	35,600	38,000	37,400	53,500	44,712	41,670	38,172	31,025	34,650
Agency for International Development projects	81,000	80,500	84,600	87,800	111,800	203,270	140,000	170,000	170,000	200,000
Peace Corps	...	...	...	44,300	57,175	41,944	43,641	44,095	39,422	38,190
Other International education and training[17]	...	...	7,400	9,200	10,183	36,816	46,697	25,868	27,708	19,415
Other	334,300	318,700	381,900	400,200	403,800	349,861	332,088	355,602	433,432	515,166
Agricultural extension service	59,300	63,000	79,400	85,400	90,700	92,824	90,030	97,273	129,949	170,717
Educational television facilities	...	...	5,200	5,100	15,200	3,304	6,737	8,756	21,417	30,101
Education in Federal correctional institutions	2,100	2,500	2,900	3,500	3,600	6,341	3,662	3,816	5,466	6,848

See footnotes at end of table.

Table B-10.—Federal funds for education and related activities: Estimated obligations for fiscal years 1962 to 1967; and estimated outlay for fiscal years 1968 to 1971—Continued

[In thousands of dollars]

Type of support, level, and program area	New obligational authority						Outlay			
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Other education and training[18]	$ 7,000	$8,300	$ 10,600	$11,000	$12,800	$15,199	[19] $6,000	[19] $9,000	[19] $8,000	[19] $7,000
Value of surplus property transferred:										
Acquisition cost of personal property	244,900	223,800	268,700	277,300	266,400	215,509	199,383	223,503	255,100	286,500
Fair value of real property	21,000	21,100	15,100	17,900	15,100	16,684	26,276	13,254	13,500	14,000

[1] Includes Office of Economic Opportunity and Indian education programs.

[2] Includes small amounts for National Defense Education Act loans to private elementary-secondary schools.

[3] Includes supplemental centers, school library materials, strengthening State education agencies, captioned films for the deaf, dissemination of information, school counseling and testing, American Printing House for the Blind, planning and evaluation, and National Aeronautics and Space Administration elementary-secondary schools program.

[4] Includes Elementary and Secondary Education Act Title I, handicapped children, dropout prevention, bilingual education, Kendall School for the Deaf, and development facilities in redevelopment areas.

[5] Includes District of Columbia, Canal Zone, territories and dependencies, Cuban refugees, and payments in lieu of taxes by the Atomic Energy Commission and the Tennessee Valley Authority.

[6] Includes model secondary school, educational exchange, National Science Foundation science education, and National Foundation on the Arts and Humanities.

[7] Data are from *Federal Funds for Research, Development, and Other Scientific Activities,* annual publication, National Science Foundation. Includes university-operated research centers.

Business Administration training program. Similar information not available prior to 1967.

[13] Includes National Defense Education Act student loans, insured student loan advances, loans for nurse training and health professions, Cuban refugee loans, and insured vocational education loans.

[14] Includes Department of Housing and Urban Development college housing loans and Office of Education college facilities loans.

[15] Separate figures are not provided for 1967 and subsequent years but are included in "Professional training, military."

[16] Includes Library of Congress, Smithsonian Institution, General Services Administration, National Archives and Records Service, National Agricultural Library, and Government Printing Office depository library and catalog and index activities.

[17] Includes special foreign currency education research and training, Public Health Service National Center for Health Statistics, English language teaching in Poland, U.S. Information Agency education assistance, National Science Foundation international education activities, and National Aeronautics and Space Administration international education activities.

[18] Includes Department of Labor apprenticeship and training support, Department of Commerce State technical services program, and Department of the Interior mine safety training.

[8] 1971 Amounts are estimated by the Office of Education.

[9] Includes adult vocational education, Manpower Development and Training Act training and subsistence.

[10] Includes Office of Economic Opportunity programs for vocational-technical and continuing education; Social and Rehabilitation Service, work-incentive activities, Cuban refugee assistance; development facilities in redevelopment areas, and Indian education.

[11] Adult basic education.

[12] Includes National Institutes of Mental Health mental health training; Department of Commerce development planning, technical assistance, and research; and Small

[19] Department of Labor apprenticeship and training support only.

NOTE: Because of the exclusion of some programs and because data are based on Federal disbursements rather than the authority to spend, the figures since 1968 are not strictly comparable with those for earlier years.

SOURCES: Compiled by the National Center for Educational Statistics, Office of Education, U.S. Department of Health, Education, and Welfare, from information collected by the Bureau of the Budget for its report, *Special Analyses, Budget of the United States.* Research data are from *Federal Funds for Research, Development, and Other Scientific Activities* XVIII, National Science Foundation.

Table B-11.–Office of Education expenditures, by legislative program: Fiscal years 1960 to 1971

[In thousands of dollars]

Legislative program (1)	1960 (2)	1961 (3)	1962 (4)	1963 (5)	1964 (6)	1965 (7)	1966 (8)	1967 (9)	1968 (10)	1969 (11)	1970[1] (12)	1971[1] (13)
Total	**$459,965**	**$527,626**	**$547,408**	**$635,210**	**$673,005**	**$872,021**	**$2,024,428**	**$3,075,349**	**$3,613,476**	**$3,472,793**	**$3,736,552**	**$3,866,965**
Elementary and Secondary Education Act	811	1,095	1,247	1,521	1,648	1,712	816,982	1,252,211	1,335,590	1,381,931	1,423,642	1,502,074
Title I. Educationally deprived children	....	....	....	....	....	....	746,904	1,056,621	1,049,116	1,073,033	1,139,572	1,249,300
Title II. Library resources	....	....	....	....	....	....	47,871	92,505	91,054	64,530	....	....
Title III. Supplementary education centers	....	....	....	....	....	....	10,938	74,961	161,256	194,058	209,000	172,774
Title V. Strengthening State departments of education[2]	811	1,095	1,247	1,521	1,648	1,712	11,269	28,121	26,297	27,463	34,150	35,900
Title VI. Education for the handicapped	....	....	....	....	....	....	....	3	7,867	22,088	26,520	24,900
Title VII. Bilingual education	....	....	....	....	....	....	....	....	....	456	7,500	9,000
Title VIII. Dropout prevention	....	....	....	....	....	....	....	....	....	303	6,900	10,200
School assistance in federally affected areas	258,198	278,782	282,909	343,111	334,289	349,671	409,593	447,074	506,372	397,581	396,960	340,326
Maintenance and operation	174,850	207,749	226,419	276,869	283,688	311,413	353,851	399,858	470,887	374,589	356,082	305,686
Construction	83,348	71,033	56,490	66,242	50,601	38,258	55,742	47,216	35,485	22,992	40,878	34,640
Higher Education Act	....	....	....	....	....	22,569	35,232	238,498	365,884	315,480	550,859	620,326
Title I. University community services	....	....	....	....	....	....	3,926	14,774	9,897	8,186	9,015	1,934
Title II. Library programs:[3]												
College library resources	....	....	....	....	....	....	....	8,380	48,906	....	24,998	12,500
Library training	....	....	....	....	....	....	....	789	11,381	3,005	6,907	4,187
Acquisition and cataloging by Library of Congress	....	....	....	....	....	....	300	3,478	5,478	5,500	4,800	4,803
Title III. Strengthening developing institutions	....	....	....	....	....	....	....	4,919	22,428	26,944	30,000	30,000

Title IV. Student assistance:												
Equal opportunity grants	....	....	....	....	....	....	....	50,916	103,104	91,184	138,491	176,000
Work-study program and cooperative education	....	....	....	....	....	22,569	30,634	106,263	111,812	95,058	160,000	160,000
Insured loans	....	....	....	....	....	....	....	15,934	28,947	49,118	108,751	139,641
Student loans insurance fund	....	....	....	....	....	....	....	....	....	–714	12,975	14,942
Title V. National teacher corps	....	....	....	....	....	....	362	12,521	16,019	19,358	24,243	29,788
Title VI. Undergraduate instructional assistance:												
Television and other equipment	....	....	....	....	....	....	....	20,523	5,415	14,553	16,723	1,331
Special programs for disadvantaged—Talent search and remedial assistance	....	....	....	....	....	....	10	1	2,497	460	1,821	6,160
Special services for disadvantaged—Upward Bound	....	....	....	....	....	....	....	....	....	2,828	12,135	39,040
Higher Education Facilities Act	....	....	....	....	....	2,988	105,526	276,762	461,965	414,967	412,162	425,681
Title I. Public community colleges and technical institutes	....	....	....	....	....	....	14,097	58,152	80,202	69,304	75,980	75,000
Other undergraduate facilities	....	....	....	....	....	....	34,642	121,475	236,861	199,337	190,378	195,000
State administration and planning	....	....	....	....	....	1,288	1,675	2,115	5,066	4,885	5,600	6,600
Major disaster areas	....	....	....	....	....	....	....	....	147	284	....	....
Title II. Graduate facilities	....	....	....	....	....	....	4,220	13,978	37,970	46,924	38,080	26,000
Title III. College construction loans	....	....	....	....	....	1,700	50,892	81,042	101,719	94,233	92,204	103,530
Construction loans interest subsidization	....	....	....	....	....	....	....	....	....	....	9,920	19,551
Vocational education[4]	45,179	47,769	51,762	55,176	54,503	131,054	128,468	226,163	255,224	256,595	260,348	320,677
Vocational Education Act of 1963 George-Barden and supplemental acts Smith-Hughes	45,179	47,769	51,762	55,176	54,503	128,327	118,396	215,066	250,197	237,539	227,168	271,547
Work-study programs	....	....	....	....	....	2,727	10,072	11,097	5,027	....	....	....
Cooperative education	....	....	....	....	....	....	....	....	....	4,099	9,500	16,400
Innovative programs in vocational education and research	....	....	....	....	....	....	....	....	....	1,357	6,200	17,120
National advisory council	....	....	....	....	....	....	....	....	....	....	200	330

See footnotes at end of table.

Table B-11.—Office of Education expenditures, by legislative program: Fiscal years 1960 to 1971—Continued

[In thousands of dollars]

Legislative program (1)	1960 (2)	1961 (3)	1962 (4)	1963 (5)	1964 (6)	1965 (7)	1966 (8)	1967 (9)	1968 (10)	1969 (11)	1970[1] (12)	1971[1] (13)
Transfer to Department of Labor for manpower projections and studies	....	....	....	....	....	....	....	....	....	....	$ 2,000	....
State advisory councils	....	....	....	....	....	....	....	....	....	....	1,680	$ 1,680
Consumer and homemaking education	....	....	....	....	....	....	...	....	....	$13,600	13,600	13,600
Education professions development	$ 8,683	$ 12,750	$13,893	$14,237	$13,969	$36,679	$42,147	$56,407	$60,271	49,655	102,619	103,806
Preschool, elementary, and secondary training programs[5]	8,683	12,750	13,893	14,237	13,969	36,679	42,147	55,417	58,387	42,078	83,019	83,381
Preschool, elementary, and secondary grants to States	....	....	....	....	....	....	....	....	....	2,085	17,600	15,260
Higher education training programs	....	....	....	....	....	....	....	990	1,884	5,492	2,000	5,165
Library Services and Construction Act	6,056	6,153	6,932	7,345	7,443	26,111	40,915	57,407	62,017	62,794	49,867	35,940
Public library services	6,056	6,153	6,932	7,345	7,443	22,376	25,000	32,553	32,391	30,722	21,660	18,733
Construction	....	....	....	....	....	3,735	15,915	23,923	26,615	26,897	22,700	11,605
Inter-library cooperation	....	....	....	....	....	....	....	352	1,096	2,131	2,220	2,261
State institutional library service	....	....	....	....	....	....	....	345	1,175	1,959	2,050	2,066
Library services to physically handicapped	....	....	....	....	....	....	....	234	740	1,085	1,237	1,275
Educational improvement for the handicapped	$380	$997	$1,191	$2,587	$4,982	$15,327	$15,366	$26,937	$33,088	$34,140	$47,321	$58,159
Teacher education and recruitment	308	814	943	2,337	2,466	12,823	10,448	21,968	24,162	21,680	27,768	31,000
Research and innovation	....	....	....	....	1,016	1,004	3,227	4,185	8,277	9,737	13,616	17,479
Captioned films and media services	72	183	248	250	1,500	1,500	1,691	784	649	2,640	4,339	5,221
Early childhood education	....	....	....	....	....	....	....	....	....	83	1,598	4,459
National Defense Education Act	117,965	153,608	158,801	175,154	216,338	232,287	320,172	338,015	370,034	353,869	261,248	245,900

Title II. Student loans and cancellations	40,326	57,491	74,,532	91,841	111,729	135,538	177,394	181,000	182,825	196,621	164,510	143,007
Title III. Instructional assistance: Grants and loans[6]	49,848	56,218	39,510	34,010	56,131	50,615	76,175	69,438	85,916	52,328	2,346	2,093
Title IV. College teacher fellowships	4,620	11,451	17,313	19,604	19,680	20,695	31,974	52,591	60,650	70,337	79,000	82,800
Title V. Guidance, counseling, and testing	12,870	15,686	14,064	15,162	13,710	17,322	22,017	22,779	23,093	21,988	....	....
Title VI. Language Development[7]:												
Language and area centers, fellowships, and research	10,301	12,762	13,382	14,537	15,088	8,117	12,612	12,207	17,550	12,595	15,392	18,000
Research and development	6,004	7,878	7,461	9,910	12,712	18,264	31,245	73,227	79,955	84,212	92,535	96,685
Training and research	....	....	....	....	....	....	....	6,548	4,832	4,470	6,095	6,450
Construction	....	....	....	....	....	....	....	1,171	333	490	2,400	7,814
Research and development and educational media research and dissemination[8]	6,004	7,878	7,461	9,910	12,712	18,264	31,245	65,508	74,790	79,252	84,040	82,421
Major educational demonstration—District of Columbia	....	....	....	....	....	....	....	....	....	$502	$1,000	$3,015
Adult basic education	....	....	....	....	....	$3,146	$33,616	$28,336	$28,701	37,527	45,063	22,362
Civil rights activities	....	....	....	....	....	1,292	5,291	8,798	7,437	8,239	14,200	26,000
Land-grant colleges	$5,052	$5,052	$10,744	$14,500	$14,500	14,500	14,500	14,500	14,500	14,550	21,961	2,600
Special foreign currency program—training, research, and study (grants to American institutions overseas)	...	1	6	20	138	129	500	1,199	857	364	881	2,000
Educational broadcasting facilities[9]	....	....	....	....	....	....	....	....	....	3,756	6,417	7,591
Office of Education salaries and expenses, including technical services, planning and evaluation, and computer services	11,608	13,569	12,664	12,041	14,251	17,732	25,901	38,514	40,906	44,754	49,469	53,823

See footnotes at end of table.

Table B-11.—Office of Education expenditures, by legislative program: Fiscal years 1960 to 1971—Continued

[In thousands of dollars]

Legislative program (1)	1960 (2)	1961 (3)	1962 (4)	1963 (5)	1964 (6)	1965 (7)	1966 (8)	1967 (9)	1968 (10)	1969 (11)	1970[1] (12)	1971[1] (13)
Consolidated Working Fund—net advances and reimbursements	+29	–28	–202	–392	–1,768	–1,440	–1,026	–8,699	–9,325	11,877	....	....
Expenditures from funds transferred to the Office of Education by other Federal agencies[10]:												
Manpower Development and Training Act[11]	....	....	....	$30,925	$64,777	$93,715	$75,532	$99,497	$99,451	$103,691	...	....
Educational television facilities	....	....	....	....	1,962	3,130	4,663	8,222	6,737	0	....	....
International education exchange (foreign currency)	....	....	....	....	....	1,778	1,592	1,596	1,434	1,303	....	....
Appalachian Regional Development and Training Act[12]	....	....	....	....	....	....	....	1,856	21,753	22,383	....	....
Cuban Refugee Program	....	$551	$5,195	9,155	9,603	9,479	9,302	13,765	16,990	18,377	....	....
Office of Economic Opportunity	....	....	....	....	....	26,105	54,681	[13]803	[13]–.686	2,250	....	....
Consolidated Working Fund—gross outlay	62	93	3,068	1,959	2,250	2,615	10,515	[14]–749	11,395	14,763	....	....

[1] Estimated.

[2] Includes Title X, National Defense Education Act (NDEA).

[3] Amounts for college library improvement are included under research and development.

[4] Amounts for vocational research are included under research and development.

[5] Includes funds for teacher training institutes (after 1969) provided under the National Foundation on the Arts and the Humanities Act and NDEA.

[6] Includes assistance under the National Foundation on the Arts and the Humanities Act.

[7] Includes Fulbright-Hays Act.

[8] Includes amounts for college library improvement and vocational research in addition to other R&D funds.

[9] Amounts for this activity supported with transferred funds prior to 1969.

[10] Amounts listed below are not included in the Office of Education expenditure totals.

[11] Includes amounts for Area Redevelopment Act.

[12] Funds transferred prior to 1967 are included in the Consolidated Working Fund.

[13] Some OEO transfers also included in the Consolidated Working Fund.

[14] Reflects correction for prior year.

SOURCE: Compiled by the National Center for Educational Statistics and the Office of Administration, Office of Education, U.S. Department of Health, Education, and Welfare.